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As may be seen from the original programme printed in Erdmann's History of Philosophy under the date 1890, the Muirhead Library of Philosophy was designed as a contribution to the History of Modern Philosophy under the heads: first of different Schools of Thought—Sensationalist, Realist, Idealist, Intuitivist; secondly of different Subjects—Psychology, Ethics, Æsthetics, Political Philosophy, Theology. While much had been done in England in tracing the course of evolution in nature, history, economics, morals, and religion, little had been done in tracing the development of thought on these subjects. Yet "the evolution of opinion is part of the whole evolution."

By the co-operation of different writers in carrying out this plan it was hoped that a thoroughness and completeness of treatment, otherwise unattainable, might be secured. It was believed also that from writers mainly British and American fuller consideration of English Philosophy than it had hitherto received might be looked for. In the earlier series of books containing, among others, Bosanquet's History of Esthetics, Pfleiderer's Rational Theology since Kant, Albee's History of English Utilitarianism, Bonar's Philosophy and Political Economy, Brett's History of Psychology, Ritchie's Natural Rights, these objects were to a large extent effected.

In the meantime original work of a high order was being produced both in England and America by such writers as Bradley, Stout, Bertrand Russell, Baldwin, Urban, Montague, and others, and a new interest in foreign works, German, French, and Italian, which had either

become classical or were attracting public attention, had developed. The scope of the Library thus became extended into something more international, in the hope that it may contribute to that mutual understanding between countries and peoples which is so pressing a need of the present time.

GENERAL EDITOR

NOTE

In the course of the twenty-eight years that have elapsed since the first publication of Contemporary British Philosophy there have been many changes in the philosophical scene. The title is thus no longer quite appropriate, but to alter a title that has long been associated with a book would have been misleading for many of the readers whose steady demand for the volumes warrants a re-printing of them today. The nature of the work and the way the contributors were expected to approach their task has been admirably described by the original editor who continues to lend the distinction of his name to the Muirhead Library of Philosophy. But the bibliographies appended to each essay are no longer adequate, and Mr. D. A. Rees of Bangor has compiled additional lists of the main publications of the contributors. These have been placed at the end of each volume, together with a short biographical note where that seemed desirable. Mr. Rees is to be thanked for providing this material.

H. D. Lewis

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LONDON: GEORGE ALLEN & UNWIN LTD NEW YORK: THE MACMILLAN COMPANY

FIRST PUBLISHED IN 1924 SECOND IMPRESSION 1953

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PRINTED IN GREAT BRITAIN
BY BRADFORD & DICKENS,
LONDON, W.C.I.

EDITOR'S PREFACE

THE idea of a picture of present-day philosophy of which the parts are sketched in by those who have been the chief contributors to its development, and which may be said to be produced at first hand, was suggested to the editor by Dr. Raymond Schmidt's Die Deutsche Philosophie der Gegenwart in Selbstdarstellungen,1 now appearing in Germany. Schmidt takes as his motto Fichte's saying: "The kind of philosophy that a man chooses depends upon the kind of man that he is." Philosophies are not like scientific discoveries or technical inventions which are not only impersonal but depersonalized and thus in a sense self-explanatory products of intelligence. Rather they are comparable to the creation of the artist or the poet, embodying his idea, expressing his feeling, instinct with his personality. It is for this reason that the history of the philosophy of an age cannot, if it would be a true one, be merely a record at second hand of the theories that have been held as to the nature of the world and our knowledge of it. It is concerned, of course, with these theories and with their organic connection with one another and must endeavour as it may, to see them sub specie aternitatis. But it must see them also as the outcome of the spirit of the age and of the men who by endowment and experience represent the different phases of its intellectual life-in other words it must see them sub specie aetatis and sub specie personarum.

While the general idea of the book has been suggested by Dr. Schmidt's enterprise no attempt has been made to imitate it in the details of the execution. There are national peculi-

^{*} Vol. i, Felix Meiner, Leipzig, 1920.

arities, shared by British philosophy with British life in general, which put anything like such imitation out of question. British philosophers for good or ill have inherited a profound distrust of philosophical "systems." Mr. Bradley was only expressing the spirit of his time and country when he wrote in the Preface to the *Principles of Logic*: "We want no systemmaking or systems, home-grown or imported. This lifebreath of persons who write about philosophy is not the atmosphere where philosophy lives." There is, moreover, a natural hesitancy in British writers even to claim for what they have written the name of a "philosophy" at all. Had contributions to this book been asked for only from those who owned to the distinction of possessing a philosophy of their own the response would have been meagre indeed.

Not less from the side of the influences which have gone to the formation of their philosophical opinions, the comparative absence of self-consciousness in British writers makes it difficult for them to trace the course of their philosophical development or, when they are able to do so, to bring themselves to speak of it in public.

In view of these differences what has been aimed at in these volumes is in the first place to give the contributors an opportunity of stating authentically what they regard as the main problem of philosophy and what they have endeavoured to make central in their own speculation upon it. Only in the second place and as a free gift from the writers themselves have they been asked to add biographical references to the influences which birth, education, and circumstances have had in giving a particular bent to their thought.

In carrying out this design it has not been possible to include all living writers who have contributed to the development of British philosophy in our time. The selection has been confined to those who have occupied themselves with general philosophical problems rather than the application of philosophical principles in particular departments. Among these the older writers have naturally had the first place. Of the younger writers some are identified more than others

whose services to philosophy in other respects have been as great, with the development of some particular theory of the nature of knowledge and reality which it seemed important in such a general view of present tendencies as the book aims at affording to have as fully represented as possible. Even with these limitations there are obvious omissions. Some of these are due to the inability of writers by reason of preoccupation with other work to contribute articles within the allotted time, and will, it is hoped, be supplied in a future edition.

Among those who have found themselves for other reasons unable to contribute is one whose absence is particularly regretted. Mr. F. H. Bradley has been by general acknowledgment the foremost figure in British philosophy (perhaps in the philosophy of our time in any country) for the last generation. Though no one who has followed the course of his thought during that time, as it is to be found in his books and articles, can have much doubt as to the general tenor and outcome of his teaching, some summary statement of it from his own hand or (which it is more likely we should have had) some fresh development of it would have been universally welcomed. In the note printed at the end of this Preface Mr. Bradley explains the reason why he has found himself unable to give us either.

One of the writers who has contributed to the present volume is unhappily no longer among us. Bernard Bosanquet, as it happened, was one of the first who were asked to write for this book. Having consented to do so he responded with his usual alacrity. Though not actually the last words he wrote for publication the paper he sent is of peculiar interest as containing a personal note not elsewhere to be found in his published writings. In this respect, as well as in the general declaration of his philosophical faith which it contains, the essay here printed may be regarded as his last will and testament to his generation.

What I have myself written below was originally intended as an Introduction to the whole on the part of the Editor.

But when it was completed I felt that it implied a certain view of the course of the recent development of philosophy which some at least of the other contributors would reject, and in which I had no right to implicate them in any way. I have, therefore, preferred to place it along with other more important contributions in the body of the book. For the same reason I have felt that any attempt at a philosophical grouping of contributors, however useful it might be to some readers, would have been wholly improper on my part, even though it had been more possible than it seemed to me to be. I have therefore had to be content in the first place to divide the writers into Series according to the accidental circumstance of the time at which their articles became available for publication, and, secondly, within the separate series to arrange them in alphabetical order.

MERTON COLLEGE, OXFORD.

June 10, 1923.

DEAR PROFESSOR MUIRHEAD.

I am sorry not to be able to become, as you kindly suggested, one of the contributors to your work. If I could say exactly how, after the uncertainty of some years, I arrived at the opinions which I now hold, that, if not of general interest, would at least have enabled me to return thanks in detail for all that I owe. But, finding that (to speak of nothing further) even such an attempt would be now beyond me, I have to confess that there is nothing that I can offer you, except every good wish for the success of your book.

F. H. BRADLEY.

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THE INDIVIDUAL AND HIS WORLD

By J. B. BAILLIE,

Regius Professor of Moral Philosophy in the University of Aberdeen

INTRODUCTORY

Lotze remarks that a philosophical theory is an attempt to justify "a fundamental view of things which has been adopted in early life." This seems on the whole true of those who have found a final resting-place for their minds in a completed system. Both in their case and in that of the larger number of individuals who, while mentally impelled to seek intellectual satisfaction through the channel of philosophy, have not constructed a compact theory, it will probably be found that the course of their reflections has from the first been determined by certain fundamental questions, which haunted and stimulated their minds with renewed persistence. These questions seem to control the direction of thought, and selectively to decide the range and the degree of interest in philosophical problems.

To the present writer the problems of vital importance have been mainly these: How are we to reconcile the claims of knowledge to supply valid and universal truth about the world with the undoubted fact that the human mind—and therefore all that it produces, including human knowledge—is subject to temporal change and has a history? How are we to grasp the whole of human experience so as to recognize that we are, as everyday life confirms, clearly and certainly conscious of quite different objects in quite different ways, and to show

The antithesis out of which the problem arises, was emphasized in the teaching of Professor Pringle-Pattison.

I The book in which I found this subject discussed with vivid clearness, and which made an early and lasting impression, was Mr. Balfour's Defence of Philosophic Doubt, especially the chapter which discusses the evolution theory.

that all these various kinds of experience are expressions of a single principle? The And, how are we to explain the familiar fact that rational interpretation by philosophy and science seems to be fundamental and necessary, while the reality interpreted is neither made nor altered nor apparently in any direct way concerned with the process or the results of our interpretation? 2

These three problems, while not obviously connected, cannot in the long run be kept apart. In connection with the first, Mr. Bradley's logical views and the developmental theory of knowledge propounded by Bosanquet were of most importance.

* The British tradition has long maintained that experience is primarily the consciousness of objects through the senses. This seems arbitrary and indefensible. To Mr. Bradley we are indebted for having disposed of this theory, probably once for all, at least as a theory of knowledge. But it is open to objections on other grounds. It compels us, e.g., to regard the moral life as either not experience or as derived from a consciousness of objects in the realm of sense-perception. Neither alternative seems possible.

It is largely responsible for the importance which has so long been attached to the problem regarding the so-called independent existence of the "external world." This problem has always seemed to me quixotic; and the solution offered by Berkeley seems an Irishman's jeu d'esprit. Taken seriously, subjective idealism is solipsism; and that, as Voltaire remarked, is a form of lunacy, and none the less so when cleverly expounded.

Not until we generalize the term experience so as to denominate the consciousness of all objects whatsoever, can we grasp the problem it presents. It is this comprehensive outlook on the problem which gives such attraction and permanent interest to Hegel's unique volume, the *Phenomenology of Mind* (translated 1910). It was under the influence of this book and of suggestions of a similar kind from other sources, that I tried to recast the argument for an *Idealistic Construction of Experience* (1906). The method of working out that theory does not seem to me now to be tenable; but the governing conception of planes of experience still seems to me true.

This problem is one of the most obstinate and difficult to overcome. The easy solution of pure intellectualism, whether in the form developed in one direction by the recent English school of conceptual realists or in the form adopted by the idealistic school represented by Bosanquet, seems as indefensible in the face of experience as the older empiricism. A solution on the lines suggested by Spinoza's principle of individual self-conservation has seemed to me to afford the best way of doing justice to the factors in the problem (see Studies in Human Nature, 1921, ch. i., ii. and v.).

For a time it seemed possible to interpret all forms of experience in terms of the central fact of knowledge regarded as an evolution of thought. But this became unsatisfactory. The proper consideration of the second problem seemed to require that the different forms of experience should be taken on their merits, and that knowledge was only entitled to one place—not necessarily the most important place, as Bosanquet held—alongside other modes of experience. The development of knowledge seemed a special case of the more fundamental fact of the growth of the whole finite individuality. This wider conception seems to make it possible to interpret the forms of experience as levels of development of individuality. And when each stage is regarded as a state of self-conservation, in the Spinozistic sense, we seem able to meet the requirements of all three problems above mentioned.

It is hardly to be expected that these problems will appeal to others in the same way or with the same insistence; or that the problems which beset the minds of others should impress oneself as being of supreme interest. And, since the appreciation of an answer depends on the appreciation of the question, the attempted solutions of problems offered by anyone cannot be expected to carry general conviction; they are fortunate if they even meet with general consideration. These, however, are the natural limitations under which inquiries of this character have always been carried on in the course of the chequered history of human knowledge.

In the present paper I have tried to suggest briefly a conception of individuality which seems to offer an answer to these three main questions. The conception is that of the growth of individuality. Growth implies an identity of nature passing through different stages without change of fundamental structure: growth, in short, takes place within the limits of a type or eldos. Such a conception seems able to reconcile change

The natural history of mind seems an unavoidable consequence of accepting the natural history of man, which seems generally admitted; and the point of view of development seems now central in the treatment both of mind generally and of knowledge in particular.

and validity in knowledge. It suggests the further conception of degrees of experience, which enables us to connect and arrange the various ways in which we are conscious of objects. And it also seems to make possible the recognition of the peculiar place occupied by the rational or intellectual activity in human life without committing us to the transparently impossible position that the real world depends upon human understanding, or depends upon being understood.

I

THE situation out of which philosophy arises is familiar and, in a sense, simple. The human individual is single and is aware of being so; while his relations to his world, what we call his experiences, are varied, to such an extent in some cases as to have no obvious connection with one another. Philosophy tries to grasp this situation in which man finds himself. It may be described as an attempt to obtain a single complete view of man and his world.

Philosophy occupies no privileged position in man's experience. It does not create this situation. It finds the situation; and it is but a development of one way amongst others in which man's experience is carried out. It cannot, therefore, without endangering the result at which it arrives, and its own value, ignore those characteristics of the individual and his world which govern the situation with which it deals. At the end the factors of the situation must be at least as clearly recognizable as they are at the beginning of the problem.

Few philosophers seem to have realized the importance of finding a place for philosophy itself within the philosophical theory advanced, or what this requirement involves. When it has been ignored or overlooked, the result has been on the whole a misstatement of the problem of knowledge and a misconception of the problem presented by "reality." Two illustrations of this may be enough for our purpose here. On one familiar theory the problem of philosophy is undertaken as an attempt to understand how we connect and hold together

in a single system the varied contents appearing to our organic senses or falling within the realm of perception. Knowledge is said to "begin with experience," and knowledge is limited to experience. By experience here is meant primarily what the senses contain or reveal. Somehow or other this region is accepted as a datum, an irreducible and indeed inexplicable basis from which the mind constructs a solid world. In the result we have nothing but ambiguity and confusion. On the one hand, this single system constructed by the mind is described, and must be described, as itself experience. Other parts of man's life, e.g. morality, which plainly cannot be confined to sense or perception, are either treated as experience in some further sense or are allowed to fall outside experience altogether. And, strangest of all, the philosophical theory which is thus produced cannot be regarded as either knowledge or experience, and seems to be either a miracle or an inspiration from some source external to the philosopher's mind. It cannot be knowledge, for it owes nothing to any sense-datum; and it is not an experience of the mind, since it does not fall within the scope of that connected system of perceptual or sensuous data in which objective knowledge consists. short, we are left in a dilemma. For if such a philosophy is a form of knowledge, as it claims to be, the theory propounded is false; and if the theory propounded is true, the philosophical procedure from which the theory emanated is not a process of knowledge. It could doubtless be shown that other defects in this way of looking at the philosophical problem are not unconnected with the neglect of the point referred to. But these do not concern us here.

Another and a different illustration of the point we are considering is afforded by those who seek a view of the "whole of reality," regarded as objective to and independent of the individual mind. Forgetting the importance of finding a place for the philosophical theory within the view adopted, reality as such is looked upon as somehow indifferent to the finite individual. Relatively to reality, the individual is a transitory "finite centre," an appearance shot through with

contradiction, and in the long run transmuted in the one reality. The individual's knowledge shares his fate; it is not merely an appearance to the individual, it is an appearance of an appearance, and is "ultimately not true." But the philosophical theory which views the individual in this way is a certain kind of knowledge, and it is devised by some individual mind. We are thus faced with a dilemma. If this theory is the knowledge of a finite individual, it has no abiding place in the one reality and is in the long run not true; if the theory is true, and endures within the one reality, it is not knowledge. There is no escape from this dilemma except by the helpless suggestion that the term knowledge may be ambiguous.

II

The main points to be noted at the outset are: (1) The individual who confronts his world has had a history which stretches back to an indefinite period of time, and has in its process connected him closely not only with his own kind but with the organic and even the physical conditions of the world. (2) The individual is irreducible in his singleness, is from the first a unity of diverse parts. (3) His relation to his world assumes different forms, which have become differentiated in the course of the growth of human individuality and are, at the stage where philosophy begins, more or less clearly recognizable as distinct types of experience. e.g. perceptual experience, conceptual experience, moral experience. (4) While all his experiences are integrated in his own individuality, they give his individuality varying forms of satisfaction, which he learns to distinguish in the course of his experience. (5) From the first his world is equally real with himself and is never confounded in experience with his own individuality, whether by resolving the individual into a part of his world or by resolving the world into a process of his individuality. The individual and his world subsist and co-exist together.

None of these points can be disregarded; and common-

sense requires that justice must be done to them in any result reached by philosophical theory. If it be said that this in a measure seems to determine the issue beforehand, and that the procedure is thus in a manner circular, it may be replied that philosophy is not the starting-point of man's life but a late appearance, and that unless the factors in the problem to be considered are definite from the outset there is no problem to be solved. Even the description of philosophy as a "critical consideration of first principles" necessarily assumes that there are principles, that some are primary and others secondary, and that certain principles are generally accepted.

All the questions which arise fall within the scope of the general situation indicated. The nature or meaning of "reality," of "truth," of "goodness," etc., refers to some aspect or form of relation in which man stands to his world. Thus, for example, we do not set out to look for reality outside and beyond man and his world. The very terms "outside," "beyond," can only acquire a significance through the relation of man to his world. Reality lies there or nowhere. To look for reality outside implies that somehow the individual is not himself real. But reality is present in the relation of the individual to his world, and present in the terms related. Experience may be described either as a process of the discovery of reality by the individual, or as a process by which reality is revealed or "realized" in his experience. And every stage of the process has a double-sided result. It is not simply a discovery by the individual of reality in his world, it is at the same time a discovery of reality in himself. It is not only a discovery of his own reality, it is a discovery of the reality of his world.

On this view, reality is not "given" anywhere to start with, neither in the exiguous form of sense-perception nor in the comprehensive form of a totality "objective" to or independent of the human individual. For this would again imply that somehow the individual, who faces such reality, is not himself real, since by hypothesis he is not included in the

reality so given. What is "given" must be given to someone, and that which receives is not the same as what is given.

TTT

In the light of what has been said, we seem best able to obtain a conspectus of the whole of man's experience if we take it to consist in the active interrelation of a living individual with the environing world. This enables us to keep hold of what is fundamental throughout experience—the singleness of the individual life, the gradual and largely experimental character of the process from first to last, and the relative imperfection which qualifies even man's highest achievements. Man's relation to his world is functional. It consists in a series of active efforts of adjustment, assimilation and detachment. Any term characteristic of living process thus seems to express most satisfactorily its essential nature: self-conservation, growth, adaptation. Consciousness, which pervades all experience, is consciousness of a living individual; and life means growth in co-ordination within and without the individual. The essential nature of man's experience as a whole is perhaps best illustrated by the way in which a child gradually discovers the world with which it is confronted as soon as it assumes an individuality of its own; or, again, by the way in which one generation rediscovers and reacquires the knowledge already secured by a preceding generation. The world for the individual is relatively fixed; I into that world the individual is gradually introduced; and with that world he keeps up conscious intercourse by all the resources of his living individuality.

The process of growth cannot be considered to be logical in its form or in its aim. Logical procedure is essentially intellectual; and intellect is but one function which is put into operation in the course of and for the purpose of self-main-

[&]quot;Relatively," because it is not unlikely that the world is undergoing development on its own account. But its epochs of variation would have in that case a greater time-span than that of any human individual, for whom the world is certainly fixed and orderly.

tenance. It furnishes one kind of experience. The unity of individuality lies behind intellectual activity, as it lies behind every other function by which the individual lives and moves and has his being. Individuality merely assumes one specific expression in intellectual activity, an expression whose method of procedure is that of logical form and rule. Logical rules do not determine other expressions of individuality, e.g. practical action or perception; these have rules and conditions of their own appropriate and peculiar to their character. Hence it is more correct to say that the process of discovering the reality of the world can take a logical form, than that it is essentially logical. Individuality is on that account neither illogical nor alogical. It is simply more than logical; and no process of logic can exhaustively convey its experience.

Nor do we seem justified in saying that the central principle in the process of experience is that of self-consciousness.² At the best this is a late development in experience; and is largely acquired in the course of struggle and correlation with other like constituted individuals. It dominates social experience; but social or moral experience, while one of the highest forms of experience, gives no clue to express or interpret all other forms of experience. It is not possible, for example, to describe our consciousness of the world through the use of our organic senses as a consciousness of self; it is equally impossible to say that perception of the world by means of the senses is not experience. The realm of physical nature may be an "other"

Thus, e.g., the logical principle that thinking involves non-contradiction or identity in diversity is derived from, but not the sole constitutive principle of, the concrete individual life. It is an application of the fundamental nature of individuality which is appropriate to the sphere of intellect. In so far as intellect can be called abstract, this logical principle is abstract. But intellect is only abstract in the sense that it is one expression of individuality.

is one expression of individuality.

This seemed to me at one time central in experience (see *The Idealistic Construction of Experience*). The principle is highly important, but I do not now think that, on a fair view of the origin of man's life and his inseparable connection with and dependence upon the organic and inorganic conditions of the world, it is possible to consider the whole course of man's experience to be expressible as a movement from or towards consciousness of self.

to the conscious individual; but it is certainly not another self, for the obvious reason that there is no reciprocity in the relation of the individual to the physical world. We can know physical things; but physical things do not know us, in the way that, in social experience, individuals do know each other. Common-sense does not allow us to admit that there are any other selves in the world except our fellow-creatures. And there are certainly sufficient numbers of these to develop the fullest consciousness of personality—the experience in which man withdraws from the inhospitable strangeness of so much of his environment and enters the welcoming hostelry of communicating souls. Even if self-consciousness be the highest stage of experience, it is not on that account the only form; it is one amongst other forms in which our experience appears.

IV

When we observe the course of man's experience we find the most prominent facts to be (A) the complex variety of ways in which he enters into vital relation with the other beings constituting his world; (B) the varying success which the different functions of his individuality achieve in the realization of his experience—the degrees of reality attained.

(A) Man's individuality may be described indifferently as an incorporate mind, or as a conscious organism. Mind and body are indissolubly united in his individual life; and so interpenetrate in their processes that the problem of the distinction and the connection between them can hardly be satisfactorily stated, much less solved. Certainly in actual experience, as we find it, there is neither separation in fact nor in activity. Just as the upper levels of organic activity appear as conscious selective processes, the lower levels of organic activity seem, according to recent investigation, to operate in the non-selective region of the "unconscious." Where the discontinuity seems most marked,—e.g. between the function of thinking or imagination and the physiological process of the central nervous system—we usually admit that the discontinuity is merely the

measure of our own ignorance for the time being of what takes place. The normal living individual engages with his world by focussing his composite being-body and mind-on the various situations which he encounters. When he says "I see this or that," "I did this or that," or "I think this or that," he does not mean "my mind did this but not my body," or "my body but not my mind." He means what he says, namely, that his integral individuality is involved in the experience. The unity of his individuality is manifested in the effort to subsist; it is not found in any punctual unity within his individuality at the time, nor in any ideal unity of which he may perhaps become aware and towards which he may strive. reaction upon or interrelation with his world is a specific direction assumed by the single individuality. The individual always confronts his environment with his whole being, but in some particular way in each situation.

While every movement of experience involves some conscious activity of adjustment on the part of the individual, the degree of conscious effort in the process varies in general according to two conditions:—(1) the extent of organic accommodation (partly inherited, partly inherent or structural) to any part of the environing world, and (2) the extent to which selective attention is required to make the adjustment. Thus in the process of breathing, which is a form of self-maintenance in relation to the environing atmosphere, the lungs are structurally more accommodated to the environment and in consequence involve less conscious effort than in distinguishing sights and colours, and still less than is necessary in the selective activity of securing food or controlling natural objects. general we may say that conscious effort varies directly as selective attention is required and inversely as the organic accommodation to the environment. Thus where preformed organic structure and function are at a minimum, e.g. in the activity of reflection, the conscious effort required is at its maximum.

Between the lower limit of conscious relation to the environment, where relatively slight activity is exerted, and the upper

limit, where continuous effort is demanded from the individual, many forms of interrelation with the world are found. They are different in their process, in their conditions, and in the kind of relation they establish between the individual and his world. They are different forms of experience.

We may take the more familiar by way of instances of the varieties of experience. Thus we have the exercise of the various special senses—eye, ear, touch, etc.,—which are structurally determined and give the individual the experience of his physical independence of and interdependence with his world.

In the emotional attitude, the individual discovers that individual objects in his world promote, sustain, or hinder his own life, or have what may be called different degrees of kinship or alienation from him. Whereas the special senses supply the individual with mere "qualities" of things, emotions such as fear and sympathy are attitudes which are aroused by the presence of another real being, and concern man's existence more intimately than do the qualities of things.

Again, the active exercise of the free limbs of the body for the purpose of controlling or interfering with selected parts of the world, produces a heightened sense of distinctive individuality on the one hand, and a relationship of subordination between the individual and the world which he fashions by his action on the other. The relative subordination of the object to the agent felt and realized through action, while it never in fact extinguishes the independence of the object, may yet be so complete as to give the individual a feeling that his world is transformed by action, is but a quasi-extension of his own individuality and in a manner incorporated with him. This is what we find in some of the higher forms of work.

Once more, we have interrelation established through the selective activity exercised by the intuitive and reflective intellect in the scientific attitude to the world. In contrast to that just mentioned, there is no apparent or consciously direct dependence on bodily conditions for the carrying on of this form of experience. Partly on this account, the interre-

lation between man and his world at this level involves a constant sense of detachment from his world, in some cases so complete that the individual looks upon his environing world as "outside" or alien to his life: in extreme cases he has treated it as indifferent almost to the extent of non-existence. Nevertheless intellectual activity has behind it the whole life of individuality, and is a way of securing the stability and integrity of the individual in relation to his world. In the normal activity of the intellect, as distinct from the exceptional or extreme cases referred to, the individual does not merely find himself detached from his world. When the intellectual process is satisfactorily completed, he finds himself more at home in his world than before the process was undertaken, largely because thinking establishes relationships with the world which are relatively permanent and universal.

Another familiar inter-relationship may be mentioned. One region of the individual's environment is constituted of beings in all essential conditions like himself. The experience through which the individual establishes and maintains relations with these, brings into play and utilizes simultaneously many other forms of relationship, some of which have been indicated—the organic senses, perception, the instincts, the emotions, actions and thoughts. Likeness of individuality gives rise to complete reciprocity of interrelation; and no other form of experience exhibits reciprocity between the individual and other beings. In scientific knowledge, for example, the relation of the individual to the thing known is not reciprocal. Reciprocity at once implies independence of individuality and brings about thorough-going interdependence between individuals. The experience of reciprocity of individuality constitutes the social order of human life. In no other sphere of experience does the individual secure the same sense of solid integrity of separate existence either in himself or in other finite beings; for the activity of each is directed not merely to maintain himself, but in so doing to maintain, or assist the maintenance of, other

² Certain forms of abstract thinking both in science and philosophy have taken this direction.

individuals. It may be difficult for an individual in some parts of experience to separate sharply his own individuality and other beings, e.g. in the process of sense-perception or even in action. But every individual can and must maintain the separateness of his individuality relatively to other human individuals. The insistence on this is the essence of reciprocity; without it the individual would lose all sense of individuality, just because of the fundamental generic likeness between individuals. The greater the likeness the more necessary, so to say, does it become to discover and maintain separation. Hence the individual acquires more readily, and seeks to acquire, a greater sense of individuality in interrelation with his fellows than in other kinds of interrelation with his world. This sets an unique task in his experience—the task of the moral life.¹

What has been said may be enough to show the variety of ways in which man confronts his world. They are, of course, not exhaustive; and each type of itself is capable of an almost indefinite variety of detailed expression.

V

If we observe the various forms of experience, we shall find that they all involve the same general character of experience: a conscious distinction and relation of the concrete individual to his world, a process of conscious reference of some form of his activity to some region of the world. The differences, however, between the several distinct forms of interrelation constituting experience are only to be found empirically. They seem to have no logical or even temporal connection with one

¹ Some have suggested that we arrive at the consciousness of other human individuals by way of "inference from our sense experience." It is difficult to attach any meaning to such language, for the inference assumes what the inference is supposed to establish. Without complete reciprocity between individuals there would be no basis for the inference, neither major nor minor premiss. We do not merely see each other, but communicate with each other, feel emotions towards each other, and act upon and towards each other.

another; and each is governed by laws or conditions peculiar to itself.

It seems as impossible to show from any fundamental principle why the individual should have all these varied ways of adjusting himself to his world, as it is to show why he should have more senses than one or why one sense differs qualitatively from another. All we can say is that we find by observation these forms of experience.

The struggle for existence can account for variations of structure or function in species and in individuals; but so far the theory can hardly be said to account for the existence of qualitatively different structures and qualitatively different functions. Nor is it possible to derive from any conception of human individuality these varied forms of experience; for every conception of human individuality or of its purpose must first accept these modes of experience as so much empirical fact. Neither science I nor philosophy seems able to explain the origin or the reason of qualitative distinctiveness in the various forms which experience has assumed. They are observed to be different; and that is all that can be said on the question of fact. They cannot be derived from one another, nor can any one operate as a substitute for another. We cannot derive one sense from another, nor all from touch, even though it be shown that touch is a common factor in all sense-experience. Still less can we derive action or thought from sense-perception, or emotion from any of these or any combination of them. Each involves a specifically different call upon the resources of the individual, and each is a specifically different reaction towards the world of objects. They are held together by and they all fall within the life of the one individual: and this alone gives them connection and

If the attempt has been made, e.g. by Spencer, to trace the genetic evolution of the mental life, and by others, e.g. Dr. Ward, to arrange the contents of mental life in an ordered sequence of stages, functional in character. But neither of these quasi-descriptive interpretations can be said to explain the origin or the reason of the qualitatively distinct attitudes constituting the individual's experience. These are observed beforehand and simply accepted as facts.

continuity with one another. With a new distribution of attention, a new and distinctive attitude is taken up, thus constituting a new experience. We cannot by taking thought add a single contribution to the sphere of sense-perception. Nor can thought be identified with action. When we describe action as "applied" thought, in the term "applied" the essential character of action, as distinct from thought, is already involved. To carry the thought into action an entirely different adaptation to his world is consciously made by the individual from that required to arrange and develop a process of thinking.

The qualitative distinction between the different forms of experience is further indicated by their being governed or regulated by different laws and conditions. Thus the laws of thought do not hold of the processes of sense-perception. Thoughts are consistent or inconsistent with other thoughts. Sounds are not consistent or inconsistent with thoughts or with one another; they are harmonious or discordant to the

The attempt to reduce action to thinking by describing it as "applied thought" is one of the most persistent tendencies or prejudices of certain philosophers and some scientists. It is one of the idols of the philosopher's cave: it is no more accurate than the view of the "practical man" that thought is but a form of practical action. It is, however, difficult to eradicate this error from a certain type of mind. A recent writer on philosophy goes so far as to regard speculation as a kind of substitute for action. "Speculation," he says, "is only a form of practice in which the practical issue is suspended." In other words, in order to maintain the doctrine that thought in some way contains action, the suspension of a practical issue has to be identified with the practical issue itself; the arrestment of action is taken to be the same as the performance of the action. The obstinacy of a prejudice could hardly go further. Obviously the suspension of the practical issue is already a form of action, viz. a decision not to carry out the thought. It seems transparently absurd to identify a decision not to act with the whole course of action, or to hold that active performance adds nothing to the thought of performance. Even the practical application of scientific theory does not mean that the facts or events resulting from the application come out of the theory as a scheme of thought. What takes place in such cases is that we combine the process of thought with the content of sense-perception into a continuous experience, both thought and sense-perception being qualitatively distinct from one another but capable of being blended within the individual's experience simultaneously.

ear. A combination of thoughts is not necessarily or always thought. But a combination of sounds is always sound. Similarly, a judgment may contain other judgments which may be derived from it; but one colour cannot be derived from another colour, when the latter is presented to the eye. With the necessary changes the same observation applies in the case of other forms of experience—action or emotion, for example—as compared with the activity of thinking.

It is important to note, further, that in the various types of experience not only are specifically different functions of the individual life brought into play, but more of the functions of individuality co-operate in the realization of the experience in some types than in others. Thus in sense-experience, the relation of man to his world can be carried on, and in general x is carried on, without any reflective process, and without any emotion being involved. The individual opens his eyes and he sees colours; he moves his body and sees other colours. The construction and functional adjustment of his sense-organs settle his experience. In the emotional attitude, however, sense-perception is involved; and sometimes ideas are implied and enter into the constitution of the experience, either by way of initiation or direction, or, it may be, continuance. In carrying on scientific activity, again, perception may be required, emotion to some extent always is implied, as well as what is central in this experience—the arrangement and connection of thoughts. In the moral life still more of the individual's functions are exercised to cope with the situation in which he interacts with his fellow-creatures.

VI

⁽B) This remark has an important bearing on the next feature of experience to which we pass. The different forms of relationship between the individual and his world seem to be realized with varying degrees of success, and establish his individuality

[&]quot; 'In general," because in certain cases, as is well known, an emotional tone does accompany colours.

more or less fully and more or less securely. There are three points to consider in this connection: (1) Each form of experience supplies a different consciousness of reality; (2) in some forms of experience he seems able to attain a greater conformity to his world and a greater degree of confidence than in others; (3) his individuality is fulfilled in varying degrees in different kinds of experience.

(I) Reality is sometimes identified with our completed experience, with our "experience as a whole." Sometimes one form of experience is taken to be primarily or solely reality: e.g., sense-experience has been so regarded; and all other forms of experience have then been treated as secondary or derivative from "reality as found in sense-experience." The first is ambiguous; the second is arbitrary. But in either case it is implied that reality is that which is permanent, continuous, and irreducible in experience, that from which experience proceeds and in which it subsists. The single living individual in active relationship with his world alone seems to possess these qualifications. Wherever the human individual secures through relation to his world a consciousness of his solid integrity, there he is certain of being real and certain of the reality of his world.

In that sense it is true to say, as many have said, that "reality is individual." For with the consciousness of individuality on the part of the human individual there always goes a consciousness of his world, or a part of his world, as in some way individual. The individuation of his world is obtained in some cases by a process of selection and concentration. This is found more especially in the region of sense-experience, when, e.g., the continuum of light or sound-sensation is broken up by the selective action of attention into definite parts or areas. When this has been accomplished, the individual is aware of his world as real in the region of sensation, and he treats it as real accordingly,—that which resists, and subsists along with, his own individuality. But in all cases the interaction of the individual with his world is the way in which the individual both discovers his own reality

and that of his world. His experience may be said to consist in the process of this discovery.

There is no consciousness of individuality at the price of disintegrating or dissipating the solidity or unity of the living individual. If this goes, the consciousness of reality disappears altogether. And conversely, if the substantial integrity of the parts of his world were melted away into "mere appearances" or illusion, the consciousness of the singleness of individuality would be unrealizable.

In the course of experience we find that the individual does not attain a consciousness of his entire individuality all at once, or a consciousness of his world all at once. It consists in a series of experiences, connected in that they fall within the life of a single individual, but distinct in that each proceeds along its own lines and subject to its own conditions. The nearest approach to a consciousness of "all reality" is found in religious experience. But even then we do not enter into conscious relation with every reality in the strict sense of the term, but with "reality as a whole." Thus, e.g., religious experience rises above and ignores the visible and tangible realm of the senses, and is focussed on the unity or abiding order permeating all things. But "all reality" cannot be experienced if we ignore the play of the senses, or any other function of the individual's life. In a word, the consciousness of all reality and the consciousness of reality as a whole are in principle and in experience distinct. There is no single state of experience in which we are simultaneously aware of, or simultaneously exercise, all the complex and varied activities making up the entire range of experience; there is no single attitude in which we stand in relation simultaneously to each and every part of our world. The only way in which in fact we enter into relation to the world is through discrete and distinct forms of experience. When one is being carried on, the rest are in "background," or for the time ignored. This is doubtless due to our finite limitations. But whatever the cause or reason it is obvious fact.

¹ Hence the error of certain forms of mysticism which seek to grasp the whole and its parts at once.

Now if we are not arbitrarily to confine the consciousness of reality to one mode of experience, there seems only one other alternative. We become conscious of reality in each form of experience. The reality of which we are conscious varies with each form. But it is reality in each case, because in each the individual secures his solid integrity alongside and in relation to some part of his world equally real with himself. And this view seems in fact to be confirmed by our procedure in everyday life and to conform to common-sense and common usage.

We may take certain typical forms of experience to illustrate the point.

- (a) In the sphere of our sense-experience—sensation and perception—we are aware of nothing whatever beyond what appeals to, or can be found by the exercise of, our sense-organs. The reality of which we are aware here consists of regions of sense or centres of sense elements-"things of sense." These are not appearances, still less illusions; they are reality at this level of experience. Moreover, within this level, so far as a distinction is drawn between reality and appearance, that distinction is one made and used solely by the exercise of the senses. For example, we confirm and criticize the deliverance of one sense-not by another region of experience-but by the exercise of another sense. When different senses converge on the same part of the world—when, e.g., touch supports the deliverance of sight—the object is more firmly fixed in the realm of sense-experience than when the deliverances of those different senses are divergent. No other form of experience can supply what is peculiarly found in sense-experience. And we are always certain of individuality in this experience, as e.g. through the consciousness of the resistance of our organism to the things of sense. By sense-experience, indeed, we may be said to become aware of our physical or material independence of other physical parts of the world. In this way experience at the level of the life of sense is a discovery of reality in one form.1
 - If it be said that the reality in the experience of seeing or hearing,

(b) Let us consider another type of experience—that of reflective knowledge or science, which at its best takes the form of a systematic and precise connection of definite concepts. In this case the relation of man to his world is carried on by the continuous exercise of the function of thought, the function of bringing diverse elements within a single general unity. The function in any given case is carried on to a point, largely determined by selection, where a connected system of thoughts or universals is established. The experience consists in the discovery and establishment of this system. For in that system the individual becomes aware of the permanent unity of his own life and at the same time the enduring stability of his world. The systematic connection of thought is thus at one and the same time the discovery and establishment, in a distinctive way, of his own individuality and of the coherent integrity of his world. The reality of which the individual is conscious at this level of experience consists solely in this connected system of thoughts. The experience is the conscious fulfilment of the individual life through the process of establishing the system.

This does not mean, as some seem to have held, that man's thoughts are the "substance of the world." All man's experience is his own from first to last. It is his way of fulfilling his individuality, which is a life growing into communion with its world. This holds of sense-experience no less than of science. The world does not hang upon man's apprehension. This is particularly evident in the case of the experience achieved through reflective or scientific knowledge where, as we find, the process is difficult to carry on, definite consists in vibrations of ether or vibrations of air, the answer is (1) that

this is not even a true analysis, since the organ of vision and that of hearing are necessary to give any meaning to the terms sight and sound; and (2) that these vibrations are apprehended at another level of experience—that of science, and, so far as verifiable by sight or hearing, assume that the sense organs are involved in and not excluded from the experience.

Or—if we may put it so—the individual is expressed "objectively" in this system, his world is revealed "subjectively" in the system. The system is "objective."

concepts are difficult to secure, a precise connection rarely established. To suggest that the "substance" or even the "existence" of the world has to wait upon such an experience seems childish in its absurdity.

The importance attached to conceptual experience—an importance which probably accounts for the view just mentioned—is due to two of the characteristic qualities of thought. It is in large measure selective in its procedure and therefore in a peculiar way expressive of the initiative of the individual; and it functions in the medium of universals which, when secured, do not readily change. It thus in a special way manifests, on the one hand, the independence and singleness of man's individuality, and seeks, on the other hand, to establish a result which gives the individual a consciousness of his solid integrity and permanence.

Reflective consciousness of the world has to be won by deliberate conscious effort; and because it has to be won, the effort may fail and does fail repeatedly, as the history of man's knowledge shows. It is in this sphere of experience almost more than in any other that the experimental procedure of trial and error, characteristic to some extent of all man's experience, is specially illustrated. If we bear in mind that man's experience is essentially the growth of a living individuality, the explanation of this highly experimental character of so important an experience as that of reflective thinking, must be that the function of thought in man's life is less fully developed than certain other functions of his individuality. Thought may thus be looked upon as a "growing point" of the future development of man's individuality, the line (or a chief line) along which his further evolution may be expected to take place.2 In his sense-experience his development seems

It is interesting to note that the high degree of initiative and selection, involved in concentrated reflection, and the universality of thought seem essentially to imply one another. Hence the feeling of freedom and liberation of mind which man has at the level of thinking activity, giving him a peculiar joy and satisfaction.

² In this sense it may be admitted that, as it is sometimes said, "thought is central in human experience." It is a function which

on the whole completed; for here few, if any, prolonged or serious experiments have to be made. If his function of thinking were as far advanced in development as the exercise of his senses, he would become conscious of his world (in its parts or even in its entirety) as a clearly connected, intelligible system, with the same ease with which by merely opening his eyes the world dawns upon him as a field of colours. Such a stage in his development, however, he is obviously very far from having attained. The process of establishing a system of precisely connected thought is a perplexing alternation of success and failure. As evidence of his consciousness of the experimental character of his thought, he draws a distinction in this form of experience which is held to be peculiar to it. He distinguishes between valid and invalid thought, between truth and error or falsehood. We do not speak of true sensations or false sensations, true emotions or false emotions, though it is evident that, in these forms of experience, experiment also to some extent takes place. But the extent to which experiment obtains in different levels of experience is a matter of importance; and since there is a greater amount of experimentation in the sphere of reflective experience, the distinction there between success and failure has to be emphasized. Hence in part the reason for marking the distinction by specific terms -truth and error: a further reason is probably our peculiar interest in the process of reflection, since along this line the further advance of individuality lies.

An opposite mistake to that above mentioned may be noted.

consciously brings the unity of the individual directly to bear upon his world. Hence its possible application in so many directions; hence, too, its "abstract" character. But we must not on this account say that it is "central" in importance, i.e. prior in value to other forms of experience. Except for those whose main interest is science, there is no support for such a position. If human beings were left to the sole exercise of their powers of reflection to maintain their lives, the race of mankind would probably be extinct within a year. Some might admit this and yet maintain that not reasoning but reason is central in importance. But what that reason is which does not exercise reasoning they do not seem to make clear. The active singleness of the individual life is alone central in experience.

It is said that in reflective thinking the reality lies beyond thought altogether. One familiar form of this view is the doctrine that we "come in contact with reality" in senseperception, that our thinking "refers to" reality as there disclosed and is carried on by constant reference to reality which "comes home to us" in sense-experience. But this statement does not even apply to all kinds of thinking. E.g. how can it apply to all mathematical knowledge? Or how can it be said that in a scientific consideration of morality we are referring to what is "found in sense-perception"? And where it does seem to apply, e.g. to cognitive reflection upon perceived facts in "nature," the doctrine is not an accurate analysis of what occurs. The mind does not refer its thoughts to the realm of sensuous fact, as if this were outside the mind's experience and were a kind of unchanging substance with which it had to compare and by which it had to test the process of thought. What the mind does in thinking about the facts displayed to the senses is to devise such concepts as, when woven together into a consistent system, will, at the level of thought, establish and secure a consciousness of the single integrity of the individual life, in the same way as that is conserved by the individual through the use of his specific organs of sense at the level of sense-experience. When this is properly accomplished by thought, there is obtained a conscious continuity in the one individual life between the level of sense-experience and the level of reflective experience; and this continuity, when so obtained, increases and strengthens still further the consciousness on the part of the individual of his solid reality and the reality of his world. Hence it is that, when thought fully accomplishes its end, we have a feeling of

It is but natural that those who put forward this doctrine should also hold that "in the end all is beyond us," that the whole transcends knowledge. If reality is outside thinking from the start, it cannot but be outside it at the finish. Hence, in order that the whole may not be outside experience altogether, those thinkers sometimes take refuge in a supra-reflective "feeling" which itself transcends knowledge; that is to say, the immediacy of feeling gives us reality without relations, knowledge gives us relations without reality. Why then should knowledge trouble about reality at all?

being more completely at home in our world than we have by sense-experience alone. Hence again we find that, in such a case, thought "confirms" sense-experience, and sense-experience "supports" the results of reflection, without either interfering with the conditions or procedure of the other. We cannot, and analysis will show that in fact we do not, "test" the accuracy of our thought by, or "compare" our thoughts with, sense-experience, any more than we test our senses by our thoughts or compare the sense-experience with the results of reflection.

This interpretation of the difference and the relation of scientific experience and sense-experience seems to do justice to all the facts of the individual's life; and it avoids the hopeless difficulties which arise from the views above referred to, difficulties which have repeatedly been disclosed and not satisfactorily removed. Moreover, the above interpretation keeps close to the essential conditions of the individual's experience on which we have laid stress, viz. that the individual grows into a consciousness of his world, and each stage of his growth is not superseded by any other, but is retained in the qualitative distinctiveness of its contribution to the mind's experience.²

- I Thought must supply and does supply its own test—and that test is the consistency and coherence of our thoughts with one another. In like manner the senses must supply their own test, and this, as already indicated, is the convergence and co-operation of the senses towards the establishment of a single sense-experience, e.g. when sight supports touch, or hearing co-operates with sight.
- It is also confirmed by the well-known procedure of exact scientific reflection. For those scientists who aim at logically exact conceptual connection do not suppose that their theories are at the mercy of what, for them, is looked upon as an inferior level of experience—the experience of the senses; nor do they feel either elated or perturbed if their theories do or do not "agree" with the deliverances of sense-experience. If their theories are logically consistent and their conceptual scheme coherent, they are satisfied; they have all the reality and, they may even say, all the "truth" they want. When they consider, if they consider at all, the relation of their conceptual construction to the realm of perceived fact, it is not with a view to establishing their theory as "true," as if sense-experience could make or unmake the validity of their theory. They consider to what extent their theory, consistent in itself as a connected scheme of concepts, gives also a

(c) We may consider more briefly another type of experience. There is a consciousness of reality involved in the interrelations with other human beings, which constitutes moral experience. It is a different kind of reality from that involved in other kinds of experience, and is not derived from any process of mere sense-experience or by logical "inference from senseperception." In and with the conscious interaction with other human beings we are aware that they are as real as ourselves' and real in the same sense as ourselves, for the relationship is reciprocal. If this were not so, moral experience could not even begin. We do not first believe in or infer the existence of the friend we meet and then, having made up our minds that he is "real," proceed to converse with him. I Various resources at the command of our individuality simultaneously go out to meet and deal with our fellow: our perceptions, our thoughts, our actions, our emotions, converge on the same centre of interest. And in this process we do not merely find his individuality, we find our own at the same time. The reality discovered in this form of experience is a common

description of the order of phenomena revealed by the senses. Relatively to sense-experience their theory is looked upon as but a "conceptual description" of the world disclosed to perception, a "conceptual formulation," not an "explanation" of it. The reason for the use of such an expression is evident: the region of reflective experience and that of sense-experience being qualitatively different, the language of conceptual thought can only "describe" sense-experience, just as the language of sense-experience can only "describe" thought processes. Hence, for example, it seems rather naïve to suppose that the logical validity of the connected system of mathematical concepts constituting the mathematical theory of relativity can possibly be decided and its fate determined by the aid of the somewhat trumpery devices of telescope and photographic plate. Some of the best mathematicians seem agreed that so far as perceptual experience is concerned there are various possible mathematical conceptual schemes which will "fit the facts" besides that of the "theory of relativity" as recently put forward. But this does not affect the logical validity of this theory on its merits as a conceptual scheme.

It seems ridiculous for anyone to suggest that he infers the existence or the reality of another human being from his own, when his own could be extinguished as a conscious fact by an act on the part of the other. We can no more infer another's existence from our own than we can infer our own from another's.

reality, a community of individuality—what we call a society. The development of inter-relationship increases not only the consciousness of the individuality of others but makes clear the extent and limits of our own. Largely because, in reciprocal intercourse with others, we are acting and reacting upon and with beings so fundamentally like ourselves, a great part of the process of moral experience consists, for the individual, in the emphasis on his distinction from his fellows. His independence relatively to them becomes essential in order to keep up the relationship. Hence it is in moral experience, more than in any other relationship to finite beings, that the individual finds most clearly the boundaries of his individuality. Hence the keen sense of his reality which the individual acquires in moral experience, a reality which he permits no one to minimize or to gainsay. For not merely is he at pains to insist on it himself; but others—by processes of law and coercion-require and expect him to maintain it. In a word, the conscious reciprocity of relation between human individuals is the special process, and community of nature is the reality discovered and established, in moral experience.

VII

(2) Observation of the growth of the individual's experience clearly shows that the individual has to cultivate the various forms of experience in order to discover all that they can severally contribute to the life of his individuality, and all that they can reveal of the world about him. None of his functions, not even those of his senses, are exercised perfectly from the start; and perhaps few in most individuals are ever perfected. Experience is a perpetual process of experiment, trial and error. This is one of the most striking and, in some ways, pathetic characteristics of the life of the human individual on the planet. He is always moving about in a world only partially realized. He is met at every turn by the "obstinate questionings of sense and outward things;" and rarely loses the sense of childlike surprise so peculiarly evident in the

earliest stages of his earthly career. He has set up institutions of learning and of religion to assist him to become familiar with his world, to keep within bounds the region of the unexpected, and to resist the shocks of his environment. But only very partial success has attended any of his efforts to feel quite at ease in his world. He never seems able to come to the end of the experiments by which his experience is carried on; and never seems able to come to the end of himself. Most, if not all, other types of living creatures seem to have accomplished their round of experience, and to go no further forward, after a comparatively brief period of experimental intercourse with their world. Their organs seem perfected quickly and their repeated exercise creates no novel situations. But—

Man, with labour born, awakes to sorrow, When flowers rejoice and larks with rival speed Spring from their nests to bid the Sun good-morrow.

While even with discipline and experiment he can never quite escape the risks of error, mistake and misadventure, we find, however, that some forms of experience are carried on with greater facility, greater certainty, and greater success than others. Let us illustrate this point by reference to certain levels of experience.

It is obvious that unless certain levels of experience were from the first carried through with the minimum of subjective selection, the conservation of the individual would hardly be possible. If all man's efforts to enter into relation with his world were as difficult as the fulfilment of his higher ends, man's life would be a succession of perplexities, shortened by inevitable disaster. As the result, no doubt, at least partly, of the evolution of life on the globe, and of human life in particular, the individual begins the career of his life structurally and functionally preformed and prepared to occupy

It is not so much the unknown as the unexpected that disturbs man's life; the unknown only concerns him as a possible source of expectations.

the level of sense-experience, and also to a great extent the level of perceptual experience. He has but to open his eyes and he enters the realm of light and colour, without any conscious effort and with relatively complete success from the first. By the possession of specific organic senses the individual is mortized to the world about him from the start. This level of experience is not only rapidly acquired but readily developed: mistakes are corrected with facility; and our selective interest in parts or aspects of the experience are easily cultiv-The use of the senses is doubtless capable of high refinement of adjustment. The degree of refinement varies much from individual to individual. But everyone seems early to reach a stage where, under the limitations of his interest in this realm of experience, his sense-experience and his perceptual experience become relatively stable, secure, calculable and certain, not only for himself, but for other human beings associated with him.

On the other hand the emotions—no doubt, like sense-experience, rooted in the past history of organic life and bringing the individual quickly into relation with his environment—do not so easily provide an experience which is uniform and reliable in its procedure. Emotions, as we say, readily lead the individual astray. They require from the first constant guidance, discipline and regulation. By cultivation and restraint, more especially through the assistance of social intercourse—which depends for its procedure so much on the emotions,—the individual does arrive at relative stability in his normal emotional experience. But his emotional attitude to his world never assumes the uniformity and reliability characteristic of sense-experience.

The success which has been attained by man at the level of intellectual activity or reflective experience seems, in the light of man's history, inferior not only to that achieved in perceptual experience, but even to that found in emotional experience. The difficulty which the vast majority of men find in carrying through any intellectual process to a finish,—i.e. in carrying it through with such cogency and connectedness as to

remain beyond alteration,—is indeed one of the most remarkable characteristics of man's life. Success, so far as attained at all, is limited to very few individuals; and except in certain special sciences, the few do not always agree with one another in the final results. Continuity and uniformity of intellectual procedure from one generation to another seem most difficult to establish. The whole outlook in some sciences seems at the mercy of a crucial discovery or power of insight reserved to a privileged individual; and man's entire intellectual attitude to his world may be recast by some sweeping generalization or new quasi-imaginative vision.¹

In moral experience, on the other hand, the individual reaches a degree of success in his adjustment to his world which is remarkable, in view of the variety and great complexity of the nature of individuals with whom he comes into contact in the maintenance of that experience. In morality there has long been a stability, a relative uniformity and a continuity of experience, which have hardly been secured outside the levels of sense and perceptual experience. This is no doubt due to the reciprocity of the relationship between individuals by which this experience is constituted. In any case man's felt kinship with his fellows, which must have gradually evolved after epochs of undated struggles in the past of the race, has become a rooted emotional disposition, and has expanded beyond the confines of family, tribe, or even

In only one region of scientific experience do we find constancy of thought, approximate uniformity of thought between individuals, and relatively reliable continuity from one generation to another. This is in those sciences which furnish a mere descriptive classification of facts falling within perceptual experience and collected by critical observation. The range of knowledge of this kind is already immense. It is indeed practically inexhaustible, the only limits being those determined by our powers of observation assisted by mechanical means. But this stage of scientific experience is but the beginning of the process involved in this level of experience. It is far from the coherent system of precisely connected definite concepts in which the scientific attitude is fully realized. That, however, description of facts found in perceptual experience should lead to so little variation and disagreement between individual minds, is a very interesting confirmation of the greater stability of perceptual experience above pointed out.

nation. Communities have arisen and endured for long periods of time; and, while they lasted, have been so organized as to give individuals relative security in the present and confidence in their future. And the more freely individuals enter into relationship with each other, the more do they seek to increase fellowship and the more capable of interadaptation do they become. Institutions are created within the wider community of a nation which intensify intimacy of relationship. The conditions of interrelationship have been discovered, laid down by prescription, and supported by penalties. certain spheres of moral experience, indeed, men seem to have found and fulfilled all that this form of experience can supply. Some even go so far as to say that the direction along which success in this domain of his life can be achieved, is now known beyond doubt. Whether this be so or not, and whatever be its meaning, at any rate it indicates that human beings have in the course of human history attained a high degree of stability and satisfaction at this level of experience.

It is equally clear, however, that in its widest extent the growth of man's relationship to his fellows is far from completely realized. Few would say that the individual interest has been harmonized on a great scale with the general good of a single community, still less of all communities. Few would deny that, in many important ways, most human beings are still strangers to one another. And as long as human creatures still struggle against each other for existence, and on occasion destroy human lives in wholesale slaughter, no one can maintain that man has realized all that is implied in moral experience.

VIII

(3) A last point calls for brief consideration. It arises to some extent from what has just been said. All levels of experience involve some experimentation before the consciousness of individuality is securely established in each case; and in some levels a greater degree of success attends the process

than in others. It has now further to be noted that at some levels of experience the individual finds a greater fulfilment of individuality than at others, is conscious of being more completely realized. This is disclosed by the fact that the individual lays greater stress on the importance or value of some forms of experience than on others; and that when he has to choose—as the varieties of experience sometimes compel him to choose—between one type of experience and another, his choice is not decided arbitrarily but by reference to some standard of satisfaction by which he distinguishes higher and lower. Thus the scientific attitude towards the world gives way at times before the demands of moral experience; in like manner, the level of sense-experience, or it may be emotional experience, may be subordinated to that of experience gained through science.

It is easy to see why the forms of experience come to be thus arranged on a scale of values. The individual is one and single in all his functions. All the forms of experience fall within the confines of his individuality; and, on the other hand, the process of experience consists in discovering what these confines are, in determining and establishing them. The aim throughout is the fulfilment and, in that sense, the satisfaction, of his entire individuality—the attainment of completest expansion with completest concentration. But at no stage in the process does he find the whole of his individuality at once, all the detailed expressions with the integration of all. This is inevitable, partly because his experience is the growth of a living individuality which is as yet very far from its ultimate term; and partly because the finiteness of his capacity only permits of his exercise of attention in one specific direction at a time. Thus every stage of his life sees him realized only in one way, in one form of experience; at no stage can he, so to say, experience all his experiences at once. Hence, since he seeks to attain completeness of individuality and can only find himself at one level of experience at a time, he arranges the forms of experience on a scale of value, thereby implying that individuality is not exhaustively expressed in any one part of experience, and that in one form it is more fully realized than in another.

The arrangement of the forms of experience on a scale of value is thus entirely congruous with the general character of human experience. The procedure in determining degrees of reality is in ordinary life for the most part involuntary, and, so to say, under the instinctive guidance of the vital need of self-conservation. Whether and how far it is possible to construct a scheme of degrees of reality which could be regarded as holding universally for all individuals, is a subject which cannot be considered within the limits of this paper. On this matter we may be allowed to make two observations in conclusion.

On the one hand, we cannot construct with certainty such a system of degrees of reality or value until we can grasp with exactness in what the state of completed individuality consists. The present transparently incomplete development of the individual makes this impossible. We may, however, feel sure that completed individuality must be established along the lines of our actual experience as hitherto developed, and that it must in some way be a fulfilment of those main ends which this development has disclosed, towards which he still strives imperfectly, and in the pursuit of which his further growth must consist. These ends are what we call truth, beauty and goodness. The synthesis of these seems as yet beyond us; the attainment of each even separately is pathetically incomplete. We endeavour at best to combine them by way of compromise or co-ordination, and we feel that in the final result each will contribute to the attainment of complete individuality.

On the other hand, it seems clear not only that the fulfilment of individuality will be the discovery of our own complete reality, but that the complete reality of our world will be disclosed at the same time. For in the result, as at the beginning, the one is only possible in relation to and through the other.

The attempts to reduce them either to a common term or to one of these ends regarded as primary, never seem successful.

The form which the result must take is that of religious experience. For in his religious experience, at its best, the individual is aware of himself as securely established beyond the reach of mutability. He regards himself as eternal and as at one with the eternal. His spirit is fulfilled in meeting the Supreme face to face. From this, he maintains, nothing can separate him; and therefore in relation to it, and only in relation to it, he finds abiding individuality. In principle, religion neither extinguishes nor transmutes his singleness of individuality. It arises out of and seeks to satisfy the demand for stability of individual life when confronting all finite conditions and objects—past, present and to come—at one and the same time. The security of being, which is thus sought, is therefore the opposite of extinction or absorption. Without the maintenance of the individual there would in fact be no experience in religion any more than elsewhere. And the consciousness of relation to what is transfinite gives a sense of abiding stability, impossible to attain when the individual is conscious of being but one among many other finite beings. Hence, while in religion the individual transcends all other finite objects,-defies the shocks of finite things and their incessant change,—he does not transcend his own finiteness and limitations. remains a finite individual confronting what is transfinite. Religious experience, like any other experience, is thus a process, a process which takes account of the factors constituting his individual life from first to last-emotion, thought and action-and, like experience generally, is one of gradual self-discovery and discovery of the transfinite. It is carried on in ways quite peculiar to this mode of experience, those e.g. of renunciation, submission, and reconciliation. The consideration of these, however, is unnecessary for the purpose of this paper.

PRINCIPAL PUBLICATIONS

The Idealistic Construction of Experience (1906).

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· LIFE AND PHILOSOPHY

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LIFE AND PHILOSOPHY

PHILOSOPHY, I take it, is its own criterion. No experience of life, nor any partial aspect of knowledge, can be more to it than a suggestion or a stimulus. Nevertheless, since experience in the broad sense is all we have, our work as students of philosophy must take its form and colour from what we have most deeply made our own in life; or indeed it might be as true to say that what we have most deeply made our own in life has been selectively determined by the same leanings and impulses which our philosophy has expressed.

Thus, being asked for some account of my philosophy, and believing that if it ever could have interest for anyone, that interest would surely be absent from any brief abstract or bird's-eve view of what I have tried my best to exhibit always in concrete detail, I am going, in the present paper, to say something about the things which I have most deeply made my own, or, in a word, have cared for most in life, attempting to indicate throughout their respective functions as theoretical impulses in my work. Of course it may be said: "This is autobiography, not philosophy: what is it doing here?" But what I mean is not exactly autobiography: it is referring one's theories to the needs which drove him to them; needs partly springing from life and from current experience, partly again from the previous theory of others. I am sure such an account would interest me in connection with anyone whose thought I at all value; and it seems to me my best chance of explaining my own attitude in a small space so as to interest anyone else.

On this line I will begin without further preface, and will do the best I can.

r. A friend, a very competent philosopher, told me the other day that he had been greatly helped in understanding my social and political theory by having paid a visit to my old home on a large Northumbrian farm. It is a place where for several generations there has reigned a practice of business efficiency together with a spirit of cordial co-operation and neighbourly kindness. As Huxley once said—I quote from memory: "In teaching a boy science you should let him feel the pull of the magnet for himself," so it seems to me that a constant habituation, from childhood up, to the feeling of the co-operative will and to what Miss Follett calls "the art of living together," is a sound starting-point for social theory. After such a habituation the doctrine of the real social will. for example, comes to one as the recognition of an obvious and solid fact: and the difficulties which are raised on the ground of counter-volitions, tensions, and lacunæ in its formation, seem to be nothing but what you expect in speaking of a will at all. "Where, in particular, are you to find the actual social will?" Well, where in particular are you to find your actual will or mine? Only in the several successive and distinct decisions of every day, hour, or minute? Surely this is to abandon the idea of a man's will. What you can say, and all you can say, is: "When one lives with him, and has learned to act and feel with him, one sees that on the whole this is what he wants and what he sticks to." And for a social body, if you have in yourself any social habit at all, you can say this much at least, and often more. For the social spirit is more fully expressed, because of the needs of external co-operation, than the private will. It is indeed the completer fact in which the private will finds form and stability.

And so with "the art of living together." To have been accustomed to it from day to day, and to the constant discussion and consideration of its failures and its successes and their respective reasons, is a leading which, "when the principle comes," as Plato says, introduces you to a world of problems, intricate and arduous enough in all conscience, but

one of which the secret is after all in the main an open secret—the concrete unity of life as it is lived, overriding abstractions like bare pleasure or duty, for example, or like the meaningless opposition of mere egoism and altruism.

When things of this kind, the will and the art, have taken their place in the basis of life as rooted interests, they continue to develop their effect throughout the practical and theoretical elements of the environment, such as are suggested for my own lifetime by the names of T. H. Green, Arnold Toynbee, and C. S. Loch; so that any scepticism which takes the line that such things are not solid realities and ruling elements in the world, simply falls dead, as if it were denying that steam or electricity can do work. For a student, then, to draw out their nature as given in social and political life, to place them in relation with other forms of spiritual being, and to exhibit the comparatively incoherent and artificial nature of those doctrines "of the first look" on which individualism and its pseudo-liberty and pseudo-sovereignty rest 1 becomes a compelling and inevitable task. And it is a task which readily connects itself with other endeavours to exhibit truth and reality in the light of the criterion which is the positive non-contradictory whole.

2. Another early experience was of great significance to me, just when I was beginning to reflect critically on the New Testament narrative. I was persuaded, I suspect for the good of my soul, to go to hear at a chapel in London the distinguished preacher Dr. Moorhouse, afterwards Bishop of Manchester. After discussing some of the current criticisms on the New Testament story, the preacher broke forth with extreme emotion: "But what are all these reasonings to me? I know that these things are true." I left the chapel with two convictions firmly fixed in my mind, convictions which seemed then to have become explicit, but which, of course, had long been forming themselves. The first was that such a speaker evidently had hold of an experience which brought

In all forms of individualistic liberty or of the doctrine that might is right.

him strength and inspiration. The second was that this experience could not conceivably be what he seemed to me to identify it with (here I may have misjudged him, but I am clear as to the impression I carried away at the time), viz. an assurance that certain events in history had actually taken place.

Convictions like these, once more, adopted into the basis of thought, called one in principle to the task of interpreting such experiences. If they did not indicate facts in history, what did they indicate? Plainly, it seemed, there were values in life, and accessible values; but it was possible to look for them in the wrong place. And where ought one to look for them? The need of a criterion to distinguish the accident from the essence became obvious; and this being so, the notion of "the real thing," that in the experience which affirmed and maintained itself with power, what drew the rest with it and held it in place, in short, of the whole as a criterion, could not be far off.

3. In groping among the connected problems thus forced upon the mind, one came perpetually across a current phrase—"the other world." Even to enumerate the multiple forms of this conception, and its antitheses, would demand a considerable space. Their common essence lay in the connection or opposition of value and remoteness.

In this context two theoretical influences, closely allied to one another, made themselves emphatically felt, and one experience which was at that crisis almost new to me. The theoretical impulses were those of Plato and Hegel: the relatively new experience was that of æsthetic value.

Plato, in particular, came as a revelation; not as confirming the dualism of "this" world and "the other," but because, against one's hazy expectation, and in opposition to the current and more or less popular legends of his meaning, it was so plain and obvious that his true passion was for the unity of things and, as guides to its nature, for science and goodness. Relativity and appearance, indeed, were not left out; but the amazing point, in contrast with the Plato of everyday acceptation, was the way in which they came in. If his

main passion was for the unity of the universe, it was no less a passion for analysing, as relative to the impotence of finite minds, the varying levels of the actual scenes and experiences in which they severally and particularly live. His hunger for science and his passion for goodness obviously meant that "the other world" was not in its nature remote, but became here and now for you if you could see it and live it; and the two passions coincided in the vision of the universe as that which alone could satisfy the whole intelligence and the total desire. The law of value, as he laid it down for all time, "that which is filled with the more real, is more really filled." together with his doctrine of the increasing concreteness and vital stability of the higher experiences, made an end of dualism in principle, though fragments of dualistic formulæ might float in the ocean of his thought undissolved for the moment.

More particularly, the doctrine of the divine spirit as present in the human society, inherited from Plato by Christianity, and interpreting and insisting upon such social education and habituation as that of which I previously spoke, completed in principle the reconciliation of "the other world" with "this"; and when Hegel told us, in so many words, that the object-matter of philosophy was never anything abstruse and remote, but always something concrete and in the highest sense present, the ghost of the other world was finally laid, as in Plato it had been laid in principle.

Only it was to be borne in mind that its otherness was not spoken of without a reason. You could and often did live in a world intellectually, morally, and æsthetically mean and horrible, and because of this it was desirable and indeed indispensable to see and feel in its whole intensity the contrast with the "other" world, which yet, to apply St. Paul's expression, "was not another."

4. A new experience which reinforced and further interpreted the sense of socio-political unity, and the vision of cosmic unity as postulated by science and goodness, was, as I said, the æsthetic experience.

The genuineness of such experience in those who are not specially endowed for its reception is apt to be held doubtful. On this point, so far as it touches the philosophical student's right to comment upon the significance of beauty, I will make just three short observations. First, it appears to me that recent instructed opinion, while rightly intolerant of spurious æsthetic sentiment and gossip, is willing to concede a serious value to the simple love of beauty in unpretending minds. All who go far with William Morris are bound, I think, to such an attitude. And secondly, I would urge that the world of poetry, which is in some ways free from the technical conditions, which in the specialized arts demand special endowments almost physical in nature, is not to be treated as outside and alien to "art"; but rather exhibits the essence of art at once in its highest and in its most accessible forms. A lover of poetry is not disqualified for æsthetic experience though he were blind and deaf. And thirdly, what perhaps would have been by itself enough to say, people should take our suggestions on their merits, as they find them. It is absolutely and totally impossible to predict how much truth this or that mind may get from a given basis in experience. It is the great test of minds; and yet there is in it also an element of luck. You cannot tell till you try.

Now this æsthetic experience has a prerogative bearing on the meaning with which we recognize "another world." It gives us a present world, a world which is even one with the world we live in, but yet is twice-born, is at once its own truest self and the profoundest revelation that itself can convey. Words like these, indeed, must even weaken the experience they indicate. We all know it in fact, whether or no we care to describe it in general language. We know that it takes us into a new world, which is the old at its best. In this aspect the æsthetic experience has a profound speculative interest, and after coming under the influence, first of Ruskin, and then, and most especially, of William Morris, I was led to trace its operation on the passage from Kant's antitheses to the concrete and objective ideas by which, in the last

decade of the eighteenth century, the beginnings of nineteenthcentury philosophy took form. In beauty we have the meetingpoint of Nature and Freedom, Kant has said in effect. beauty man is free without ceasing to be sensuous; or again, Poetry and art have two conditions: they must arise above the actual and remain within the sensuous. These are the sayings of Schiller; and it was the unity thus recognized of the universal with the particular, of freedom with necessity, of the spiritual with the natural, which in Hegel's judgment, passed into the principle of knowledge and existence in Schelling's philosophy, which was the first fully to recognize the absolute stand-point, and recognized it in this synthesis. Here the whole apparatus of traditional dualism became in principle once and forever obsolete. This world and the other, the a posteriori and the a priori, the natural and the supernatural, with all their family, taken as signifying antithetical realms of being and experience, were for the future idle tales.

But at the same time, as we urged in speaking of Plato, the significance at which they had really aimed was not abolished but intensified, and the opposition between the worlds of truth beauty and goodness, and those of falsehood ugliness and evil acquired a new poignancy from being referred to a common root in the spiritual life.

And the paradox of beauty has a further suggestion, to which we shall return. It is not so very far from the essence of the beautiful as interpreted in the sentences cited above to the essence of religious faith which has been described as "rising into another world while remaining here."

5. Yet another aspect in which reality presents itself as a concrete unity replacing antithetical abstractions, helped to carry forward my thought in the direction just indicated. Attention had been intensely focussed in England on the Hedonistic controversy, especially in connection with John Stuart Mill's *Utilitarianism* and Henry Sidgwick's *Methods of Ethics*. For many of us the publication of Mr. F. H. Bradley's *Ethical Studies* in 1876—T. H. Green's conceptions being known at the time to his students through his lectures, but not yet

made public in a treatise—was an epoch-making event, not merely as restating and concluding the discussion of Hedonism, but because of a philosophical significance which far transcended that particular subject-matter. And I confess that so far as my knowledge of subsequent English theory carries me, it still appears to me surprising that the strictly philosophical implications of this work have not produced a more complete transformation, not merely of ethical doctrine, but of the entire interpretation and stand-point from which the permanent value of Kantian ethics can be and ought to be approached. appears to me absolutely plain that by developing the conception of "law universal" into that of a concrete system, embodied in the actual whole of existing institutions, and yet furnishing through its particulars a content in which the universal end lives and grows within the individual will, a meaning is given to the Kantian ethical idea which Kant very likely would have disowned, but which really satisfies the theoretical demand which his system recognized but failed to meet. From the same line of thought, in connection with the factors insisted on above, we get suggestions for dealing with the demand involved in the Thing-in-itself or the Noumenon, restoring to the latter term its true and Platonic meaning of that which is most fully and determinately experienced, and superseding the ridiculous usage in which "what is understood" had become almost equivalent to "what cannot be known." Here, again, the ghost of the other world is laid, and the concrete universal of experience is established as the typical reality.

But the implication takes us yet further, and the incompleteness of the moral stand-point involves an appeal to the religious experience. This, as we saw just now, is akin in its meeting of extremes to the æsthetic attitude, and is the province in which the antithesis of this world and the other is the most poignant and fundamental experience, and its transcendence is the deepest need of man.

From this study of the religious experience, as from the treatment of ethics proper in the same volume, I should have

expected a greater effect upon contemporary philosophy than it appears to have produced. Partly its influence must have been diminished by the fact that it soon passed out of print and has remained inaccessible to most students ever since. One constantly observes that arguments and ideas derived from it appear unfamiliar to most writers of the day, and when reproduced by others, even if favourably received, are received as novelties. Partly, too, I am convinced that the book, though brilliantly written, suffered from the excess of thought and experience which it contained. It is to most books on philosophy like Dickens or Meredith to most novels; a page of it would dilute into a hundred of any other. this point I have in mind especially the fundamental contrast between the moral and the religious attitude, according to which morality lies essentially in a recognition of the "oughtto-be" which is not (the "sollen," the "dover essere"), and therefore involves an individualistic conception of perfectibility (individualistic, because its whole point is the relation of the ought-to-be to the individual will) in particular finite spirits throughout a temporal progression. While religion, implying as a subordinate feature all that morality can imply of duty and self-improvement, is understood to lie essentially in a union by faith and will with a real supreme perfection in which finite imperfection, though actual, is felt to be transcended and abolished. The very wide-spread influence of the ethical culture movement and a progressive temper akin to it, throughout our higher civilization, appears to me to show that the philosophical lesson typically inherent in the argument to which I am referring has not at all been mastered by the enlightenment of to-day; and that, in the latter's lofty aspiration to a pure humanistic ethic, it has lost hold of the truth which had been won by religion in the ancient doctrine for which justification was essentially by faith. Mysticism, on the other side, keeps alive the genuine insight; but mysticism in its full contention is not everyone's affair, and it is distressing to see the central and sober realities of religion divided between the ethical and the mystical extremes, in each of

which, taken apart, there is an inherent tendency to extravagance. Compare Benedetto Croce with Jakob Böhme, and ask yourself if a reasonable man could sit down with either. Certainly, compared with these, the "Concluding Remarks" of *Ethical Studies* embody, in my judgment, a view as much deeper than the one as it is saner than the other.

6. All the above modes of experience, which in so many ways have proved their attraction for the mind, are linked together in a central enthusiasm when our attention is thoroughly focussed on thought as the determination of reality, and on logic as the theory of thought.

Current experience may be stimulating through its negations no less than its affirmations; and of all the platitudes by which it has from my mind's first awakening driven me to rebellion, none were more superficial than those implied in the phrases "pure thought" and "mere logic" or "merely logical," whether employed by the professed friends of reason or its acknowledged foes. If, indeed, pure thought were taken to mean genuine thinking, as contrasted with irrelevant associative transition, that might serve well enough, and would fairly coincide with the meaning which I shall ascribe below to what can genuinely be called "logic" and "logical." But pure thought as an ideal, whether imputed or accepted, of thinking which has learned nothing from the universe and in no way determines it by affirmation, exhibits itself to my mind as the very type of impotence and self-contradiction, false alike as an imputation by the foes of reason, and as an aspiration of its would-be friends.

Thought, as I understand the matter, is always an affirmation about reality through the process of particular minds. Its conception is correlative to that of reality. If you ask what reality is, you can in the end say nothing but that it is the whole which thought is always endeavouring to affirm. And if you ask what thought is, you can in the end say nothing but that it is the central function of mind in affirming its partial world to belong to the real universe. Thought which deals with no given, and constructs no order is a res nihili. Thus

it is an incomplete description even to qualify thought as we did just now, by the term "function of mind," without calling attention to its other aspects as the self-revelation of reality. The "I think," of which so much has been heard, is on one side a deceptive phrase. It would avoid misapprehension if we were rather to say (Mr. Russell has suggested it, and I have urged what amounts to the same point): "It thinks in me" or "my world in me takes the shape that——." As Green said long ago, the essence of thought is not in a mental faculty, but in the objective order of things. We bring the two sides together if we say it is the control exercised by reality over mental process."

The same thing in principle with the fallacious idea of "pure thought" is the popular conception of "logic," "mere logic," "a merely logical contradiction," "the strictly logical application of a principle." Our great and splendid neighbour across the Channel believes itself to be especially endowed with a logical genius, and we believe ourselves to believe it also, and with a significantly proud self-depreciation we say of ourselves by contrast that we are not a logical nation, that we do not love logic; that England-was it not Disraeli who told us so, and did he say "England" or in general terms "a nation"?—" is not governed by logic but by rhetoric." So that it seemed to me "like a sober man among drunkards" when Dr. McTaggart with his indomitable courage declared that "no man ever went about to break logic, but in the end logic broke him." What we Englishmen believe in, then, I hold, after all is logic, complete, concrete and solid inference, and it is this which we sometimes contrast with the "merely logical," or the "purely logical contradiction." We feel the full nauseousness of modern superficial sentiment on this point when we read in a clever article that "men are busied to-day in lifting the jewel of human vision out of the mire of logic."

This sentence is almost a verbatim quotation from Mr. Bradley. In the present paper I am shamelessly treating as my own what has delighted me in others, both to spare the reader references, and because the true owners might not acknowledge their property as I employ it.

The writer might reply—I hope he would—that the logic on which he pours contempt is just the "mere logic" which I am repudiating, and that therefore he is making the same point as myself, in obedience to Plato's magnificent educational revelation, and not, as his words suggest, in angry caricature directed against it. But I am afraid he cannot really mean that. His language may be aimed against formalism; but I feel pretty sure he is unaware that formalism is not the essence of logic.

To me, then, this whole conception of "mere logic" was from the first repulsive. It drove me in the opposite direction. To me, from the first, logic was no isolated discipline reposing on axioms and principles peculiar to itself, but was simply the clear perception of the way in which, through their connection and co-operation, the natures that compose the universe frame and mould the assertions which constitute our thought. A contradiction, for example, I took to mean, as explained by Plato, a collision in which different elements of experience attempt to occupy the same place in the same system. By a "logical" contradiction I understood not something different from this, some play of formulæ by themselves, but any such collision distinctly apprehended in its typical conditions, and, if fully stated, in the typical modifications of them by which it might be removed. The logical adherence to a principle did not mean the literal and unconsidering endeavour to apply it everywhere by itself, down to the bitter end—this would be alogical. It meant the appreciation of it in all its bearings, as arising from its necessary implication, when fully considered, in some living individual reality. The universal, the very life and spirit of logic, did not mean a general predicate, but the plastic unity of an inclusive system. The syllogism itself, in its central paradox typical of all inference, the new springing necessarily from the old, represented, if Ruskin is right, in the work of the early painter of the Spanish chapel at Santa Maria Novella in Florence, by the living and leafy spray, thus ranks itself as the identification of our mind with the very growing-point of thought, the leaping and vital flame by which a whole system exhibits its concentrated life within a single focus, creating a something which is at once the old in the new and the new in the old.

Thus it always appeared to me that of all silly superficialities the opposition of logic to feeling was the silliest. Plato's principle seemed so obvious and so inevitable, that it takes the whole object to elicit the whole mind. And as Aristotle told us in his Æsthetic, no object is a whole which is not logically coherent. This is one of the truths which is always admitted, and never applied. The emotional absorbing or carrying power which belongs to great ideas, great characters, great works of art, is measured by the depth and spread of their roots and sources in reality; and this again is measured by their logical power, their power to develop and sustain coherence with the whole. It is a blundering rejoinder to say that bare consistency is a poor ideal, and a fraud upon reality; bare consistency is bare because it is slight and shallow. The incoherence of great creations and great characters is a coherence with the profounder things; and the profounder things are the things that more thoroughly penetrate the real.

Thus, in the genuine logic, which embodies the natural impulse to seek truth and reality in what satisfies the more complex demand, we have "the whole" operating explicitly as the criterion. Implicit in all the modes of experience which attracted us throughout, it is now considered in its own typical manifestations, in which the idea of system, the spirit of the concrete universal, in other words, of individuality, is the central essence. From the first my delight was in the successive shapes in which this essence had embodied its advance, as the exhibition of the comprehensive and coherent character of the whole, and of the interconnecting modes of implication, known as inference, by which the world of fact and truth made its elements available for the supplementation of one another by way of development and correction.

I will illustrate the superior effectiveness of such a conception to that which acquiesces in the traditional formulæ, first,

from the difficulty which arises owing to the possible ambiguity of the middle term in every syllogism.

A deadly poison is one that kills Arsenic is a deadly poison
... Arsenic kills.

Of course the conclusion, read as a universal statement, is bad. The middle term in the major premise is read as implying a fatal dose with the conditions necessary to its action. In the minor premise it may just as well be taken to omit these particulars, and merely to qualify "arsenic" as "combustible" qualifies "wood." And such ambiguity seems inevitable. You could always, though not always with equal plausibility, put a double sense on the middle term. You could always say that to preserve a single sense in it, it must be specially interpreted.

But this trouble merely comes of working with bare formulæ in their text-book shape, to which no one would think of restricting himself in a serious inquiry. You would have the same difficulty in any argument reduced to a detached formula. The formula of the syllogism, for all that, is quite sound. But of course it is only a beginning. You cannot guard against all misapprehensions in a couple of sentences. For a serious conclusion you must cover a large area of investigation; and you must exhibit all your reasons or conditions or middle terms in graduated series, so that where one meaning leaves off another begins, and the whole ground is covered, each nexus being linked to its special and appropriate consequence and explicitly distinguished at every frontier where it passes into any other. Then, of course, "deadly poison" would be one of a series of characters determined in quantity and quality, and all together laying down precisely the conditions of fatal administration continuously with those which exclude it. You would have in place of a nexus merely named by a general name a concrete system of concomitant variations. And of course in the use of common language and common sense something approaching to such a system is presupposed. You supply in your mind the typical conditions which are obviously intended to be assumed in the statement.

When this is done, either implicitly as in common sense or explicitly as in science, there is no room for your middle term to go wrong. The exhibition of the relevant system holds the particulars in their right places. It is like the point which I believe is now recognized about the inheritance even of Mendelian characters. All inheritance whatever is conditional on environment. There is no absolute or abstract heredity. An organism cannot develop any character except under conditions under which it can develop itself. Thus, also, of course, we assume common sense in the interpretation of current language. We must postulate, in interpreting, the conditions which a statement is obviously intended to imply.

A kindred advantage is obtained in the treatment of error. If we understand the judgment as an isolated relation, apart from its connection with knowledge as a whole, the treatment of error becomes—what we see in Mr. Russell's Analysis of Mind, p. 272. If words take their meaning from facts, each to each, every fact being equally taken as a fact, and if the objective reference of propositions, which are true or false, is derived from the meanings of words by putting them together, then prima facie no proposition can be false whose words have meanings. And you have to introduce such a metaphor as pointing to or away from the fact to explain the existence of false propositions.

But if the matter is regarded with reference to the whole system of knowledge, we see that facts are differently considered when asserted as realities and when entertained as mere meanings of words. In the former case they are taken as elements in the real world; in the latter they are attended to each for itself, out of relation to the whole system. So considered, they are not treated as actual facts, but as possibilities. They are isolated by the fact that we ignore the conditions under which alone they can belong to reality; and, thus isolated, we call them possibilities because not in a position to be actually or unconditionally affirmed, though we

know that under some conditions or other it would be right to affirm them. For ultimately, even ideas which are thus merely entertained, are in some sense or other taken as representing facts which belong to reality. Thus there is room for a proposition which has a meaning and yet is false, viz. when a fact which is the meaning of an idea entertained as merely possible (conditional) is asserted as actual (unconditionally asserted). Possibilities are the source of the false objectives which we are told are not to be found. I believe I was the first to use in English the term objective reference, precisely in order to make the distinction which Mr. Russell's use of it confounds: the distinction between meaning and truth, between that "objective reference" which is the meaning of a word conditionally predicable, and the "affirmation" made by a proposition which predicates unconditionally.1 Error arises then quite simply, when the whole of knowledge, as present, through insufficient determination leaves alternatives possible, and there is therefore nothing to save us from affirming one which the reality, if more fully known, would be seen to exclude. The selection of the alternative we assert, its conditions not being fully known, must be held prima facie for us a matter of chance; and unquestionably there is room for the case insisted on by a certain view, that moral perversity has much to do-some say everything to do-with error. We are in a lacuna of the determining system, and anything may turn the scale.

I cannot think the difficulty about error would be felt as much as it is, if we brought to bear on it our common sense and our most trivial everyday experience. I find simple and obvious examples every hour of the day. It, again, is a favourite province of observation, which has greatly influenced my theory. I come in from a walk, and cannot find my handkerchief. I am sure I put it back in my pocket. "No doubt; but was it not your overcoat pocket?" I want to take my black pencil out of my pocket; I pull out a small,

² Author's Logic, Introduction 2. ii; Bradley's Principles of Logic, p. 4, footnote.

smooth cylinder two inches long, but it is my blue pencil. I go to the electric switches to turn the downstairs light on, and I turn the upstairs light off. Always there is some point clear and settled; but under it there are varying possibilities, alternative cases, and between these my present consciousness has nothing to decide it. I may not even know or recollect at the moment that there is an alternative. Of course we must remember that the error, when being made, seems truth; and I may take it faute de mieux, because I can see no better alternative. Thus. What is freedom? **Y**ou аге sure you mean by it a state in which you can assert yourself. But if your thought has not taken you beyond this, then you may jump at the alternative under it which first comes to hand. "It is absence of restraint." And you may never hit on the further alternative which the reality further pursued would give you. "It is capacity meeting opportunity." The reservoir of possible error, then, so to speak, is that of facts whose conditions are partially or very slightly known, the storehouse of possible alternatives. Every general name suggests a number of them, cases possible starting from it alone. Is a round square intelligible? Why, yes, prima facie. We know "round" and we know "square." And formally, therefore, we may try to treat "square" as a possible alternative under "round," or vice versa. And so the phrase designates a problem which we can attempt, though we cannot solve it.

All this follows from the graduated dependence of every so-called "fact" on the whole system of reality as present in knowledge. Error rests simply on inadequate determination within a system, which leaves alternative possibilities open, i.e. dependent on unknown conditions.

7. This recognition of the spirit of logic as the essential criterion of value and reality throughout experience, in accordance with the principle that it takes the whole reality to elicit the whole mind, was for me intensified from the first by a strong repugnance, in the moral and religious field, to finding freedom in anything that savoured of chance or caprice. "Necessity is laid upon me" seemed in all the higher walks

been my delight; and I hold any intellectualistic interpretation of Socrates' and Plato's meaning to be an anachronism and a blunder. But I cannot go further into this matter here.

8. So far, I venture to think, the character of experience as a revelation of the world of values is pretty clear. It rests, in every special aspect, on ideal experiment, that is to say, on the experienced satisfaction which we attain, in proportion as in any form of living we find ourselves for the moment beyond the field of contradiction. And so far the conclusion to a real and absolute world of values rests on the suggestive force of these special experiences.

The question now presses upon us whether we can carry the matter further. Can we understand or appreciate the world of eternal values in its character as a whole? Have we any experience which stands to the theory of its ultimate nature as the special experiences were found to stand to the theories of beauty, of ethics, or of religion?

It seems plain that we can have no such experience completely. To possess completely the world of eternal values would obviously involve a total realization and solution of contradictions incompatible with the self-revelation of the universe through particular beings. Our inference to any total perfection must be what might be called a matter of concomitant variations, resting on the impossibility of closing the ideal advance, that is, of drawing a line where the argument and the experience of value can go no further. And we must notice the fundamental importance of being in earnest with these variations. I have noted above the passionate vehemence of Plato's belief in the multiplicity, as well as in the unity, which is actual in the universe. For it is all a question of the experience of spirits; and while in one sense nothing can be more actual than its gradations, yet in another it is all of the same stuff, penetrated with a symbolism embodying its fundamental unity, and pointing to a single spirit which runs through it all. I am not forcing upon Plato a modern idealism; I am only saying what is to me perfectly plain, that where grades of life and vision are represented as correlative to grades of mind.

there is an obvious basis and presumption for the idea that in an ultimate sense the whole means more than it appears either in the imperfect souls or to them.

I was asking, then, whether we could put our finger on any special experience which aids us in conceiving the totality of the universe as a being in which reality coincides with value, according to the glimpses which everyday living has been shown to afford us. And from this point of view it seems natural to turn to the current phrase above mentioned which exhibits strikingly the endorsement unconsciously set upon our conception of reality by the popular mind in its most active and various pursuits. The highest praise, perhaps, is felt to be conveyed by it in any and every topic of experience, when it judges of anything it cares for—a game, a speech, a policy, a play or a fight, a poem or a piece of music, a great religion or a great character—that in it you have "the real thing."

I suppose that, in its everyday use, this expression has two grades of meaning. The expert in a game or sport means by it, I imagine, that the thing is being done as that particular thing ought to be done—it belongs to the best of its kind. The more romantic critic may use it of love, or religion, or poetry, and then he will be beginning to mean not merely that it belongs to the best of its kind, but that it is the best thing in life. For me, if I may end with the method with which I began, the expression has always possessed a special fascination. It combines so many aspects, all of them good. It is what holds water, what is strong, what has stability, what is durable and permanent, what is alive and comes of itself, the whole object which calls out the whole mind, in a word, what satisfies. is the logical character present in all the great experiences, in æsthetic and religious experience no less than in that which is explicitly logical and metaphysical.

Why should this strength and poignancy of the real thing—the touch of the essential flame—bring close to us the absolute? I suppose, because its quality, being the most indubitable of experiences, is also uniquely and intimately in positive feeling what the term absolute expresses by a more negative approach.

"The real thing," we saw, concentrates strength and value in itself. It supersedes all else. When you have it, you have what in wanting anything, you want, or in believing anything, you believe in. It has swallowed all contradictions, and you can bring against it nothing from outside—there is nothing to bring. This is what, from the negative approach, the absolute says for itself. "I'am all that there is—all the being and the value. You want nothing but me, and nothing beyond me can so much as be conceived."

Here in "the real thing" we experience the positive quality of the absolute, and at least begin to understand its power and right to be all that is. The intrinsic connection of reality and value becomes here transparent to us.

Thus, in this experience, we possess on the one side the characteristic quality of the absolute: on the other, the ground of its totality, the meaning of its absoluteness.

One word more on our experience of "the real thing." It suggests not only value at its height, but unity at its simplest. As in the middle region of practice and business, so in the middle region of reflection and critical common sense, we tend to sharp distinctions and would-be absolute divisions. But as in the deepest experience so in the simplest—the primitive experience which underlies and supports all other—we are in a world which is wholly one both with itself and with ourself. As in visible Nature, we are told to-day, there are no lines, so in felt experience there are no divisions. As the unity of the human race is not confined to the names that live in history, so the unity of the universe is not confined to the peaks where life touches its top. We live, it has been said long ago, and well repeated in the last year or two, a planetary and telluric life as well as one that is animal and human, and this our indistinctness from our world is always with us in our feeling. Thus we begin with unity; it never leaves us; it accents itself as life grows full and strong; and again, perhaps, no less characteristically, as it is descending towards repose. In our simplest being, as in our highest activity, "the real

thing "comes to us as an absolute—not exactly as a one, only because a one implies another.

9. There is difficulty, no doubt, in maintaining our vision of the absolute throughout the middle region of conflict and division in which we principally live. But what has always pressed upon my mind is the extent of the things which we directly possess. We possess the rare moments, and we possess the simple universal feeling; we possess also, throughout, the criterion which lives in all experience, the spirit and essence of the whole. The whole, it is plain, is such as on the one hand to include change, and on the other hand not to break away from totality. Totality expresses itself in value, which is, as we have seen, the concentration and focus of reality in its essence as real, as a positive centre which is a solution of contradictions, and so far as at any point it asserts itself in experience, a satisfaction which rests on the tensions which are harmonized at that point. This has been to me, throughout, the direct and obvious teaching of life, when looked at as comprehensively as I knew how; and I will only add one word as to the difficulties, which also experience obviously presents. They consist, in principle, of extreme cases, whether for theory or practice; and against extreme cases, I have always strongly felt, it is a fair method to set cases no less extreme, in which parallel difficulties are solved. What man has done, man, I believe, may do, and of the evils which prima facie amaze and confound our ideas and our emotional nature, there are none, it seems to me, unparalleled by such as even we can see to be intrinsic and essential in the highest conceivable values. For this insight we need no more than, for instance, genuinely to realize what is implied in love. Or, what is ultimately the same thing: Why does the most exalted enjoyment as yet freely created by man take the form of poetical tragedy? What would be the basis of our life if all that enables us to care for these things were torn away?

"My philosophy," then, is the theoretical fabric to the construction of which (adopting, of course, almost wholly what I have learned from others) my experience, as above indicated,

has driven me. New ideas necessarily appear, or old ones reappear, as the whole reveals more of itself; but remembering that philosophy must above all things keep its head, and deal with all the sides of life, and not let itself be upset just by this or that, I find it hard to believe that, as the totality which is its own criterion, it will find the new in the main irreconcilable with the old.

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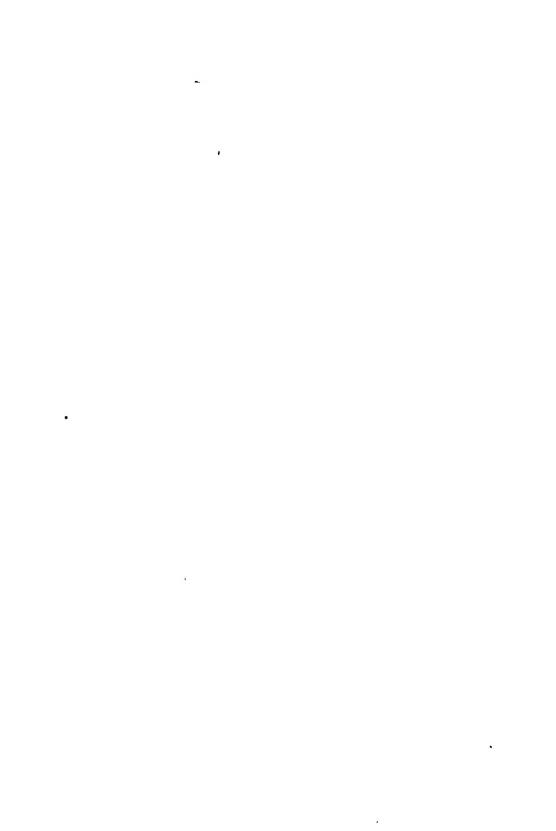
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CRITICAL AND SPECULATIVE PHILOSOPHY

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BIOGRAPHICAL

- I UNDERSTAND that it is the wish of the Editor of this collection of essays that each contributor should describe his own system of philosophy. Were I to interpret this demand literally I could not contribute anything at all, for two excellent reasons. In the first place, I have nothing worth calling a system of philosophy of my own, and there is no other philosopher of whom I should be willing to reckon myself a faithful follower. If this be a defect I see no likelihood of its ever being cured. Secondly, if I had a system of my own, I should doubt the propriety of "pushing" my crude philosophical wares in competition with the excellent products of older firms with well-earned reputations. The best I can do is to state in outline my own quite unoriginal views about the subject-matter of philosophy, and about the kind and degree of certainty which we may hope to reach in different branches of philosophical inquiry.
- § 2. A man's philosophy cannot be altogether separated from his history; for Mr. Bradley's saying, that "metaphysics is the finding of bad reasons for what we believe on instinct, but to find these reasons is no less an instinct," is as near the truth as any epigram can well be without sacrificing that brevity which is the soul of wit. On this ground, and on this alone, a few autobiographical details are necessary, and may escape the charge of impertinence. I shall therefore begin by mentioning some of the books which and the men who have specially influenced me, and by enumerating those hereditary and acquired tendencies which are likely to have biassed my philosophical views. I have always been about equally interested in philosophy and in the more abstract sciences; and, as a matter of history,

I approached philosophy from the side of natural science. I do not mean by this that I was first a pure scientist and then took up with philosophy. The latter subject interested me intensely even in my schooldays. Before I went up to Trinity I had read Mill's Logic, Kant's Critique of Pure Reason, and Schopenhauer's Welt als Wille und Vorstellung. I went to Cambridge as a convinced subjective idealist, who would have liked to believe that Schopenhauer had proved his case, but who felt in his bones that this was not so. It is true, however, that I studied natural science seriously long before I began to make an equally serious study of philosophy. The two subjects simply interchanged their relative importance for me as time went on.

When I first entered Trinity the college was full of philosophical discussion. Dr. Moore and Mr. Russell had both gone down; but the tradition of the former was still very strong, whilst the latter's Principles of Mathematics, published some four years earlier, was the basis for endless discussions among intelligent undergraduates. Probably this book, which I had read hastily in the School Library, but now studied carefully for the first time, has influenced me more than any one other. I learned from it not to welcome contradictions as proofs that such and such features in the apparent world are unreal. I learned to suspect that, when philosophers discovered contradictions in apparently fundamental categories, it was just possible that it might be the philosopher who was at fault and not the category. And it seemed to me that the contrast between the ways in which philosophers had dealt with the difficulties of infinity and continuity, and the way in which mathematicians like Cantor and Weierstrass had done so was most illuminating. Another writing which influenced me profoundly was Dr. Moore's Refutation of Idealism. This knocked the bottom out of my vouthful subjective idealism, and taught me to avoid a trap into which numberless better men than I have fallen. Of course I do not think that this article does "refute idealism," even of the Berkeleian kind; but it does refute the commonest and most plausible argument for it, and forms of this argument do

appear in the writings of philosophers who would be much hurt to be called "subjective idealists."

At a later stage of my career Mr. Russell came back to Trinity, and I derived an immense stimulus from his lectures and from conversation with him. LAs we all know, Mr. Russell, produces a different system of philosophy every few years, and Dr. Moore never produces one at all. "Si Russell savait, si Moore pouvait" seems the only adequate comment on the situation; but I owe more than I can tell to the speculative boldness of the one and the meticulous accuracy of the other.

In the meanwhile I devoured eagerly all Dr. McTaggart's books, and enjoyed the privilege of his lectures and his personal influence. I learned from him to look with suspicion on that "grateful and comforting" mixture of idealistic metaphysics with edifying social and ethical theory which used to emanate from the West of Scotland. His teaching and Mr. Bradley's writing strengthened in me a natural dislike for every kind of Schwärmerei and enthusiasm in philosophy. He little knows how nearly he made me an Hegelian, or perhaps I had better say a "McTaggartian." From this fate my native scepticism (to which I shall refer later) about all big systems based on abstract reasoning saved me at a time when I could not see precisely what was wrong in detail with the argument.

To Mr. W. E. Johnson I owe my interest in the problems of probability and induction, which have been somewhat neglected by mathematical logicians of the Frege-Russell school.

The last important external influence which moulded my philosophical views began to act when I left Cambridge and went to St. Andrews. Here I was constantly in the closest touch with Professors Stout and Taylor. It was a great advantage to me to discuss philosophical problems almost daily with men who were obviously the intellectual equals of my Cambridge teachers, and who yet belonged to very different philosophical schools from them and from each other. From Professor Stout I learned, among much else, to see the importance of psychology, a subject which I had formerly regarded with some contempt. It were difficult to mention any subject on which

I did not glean something from Professor Taylor's immense store of accurate and ever-ready knowledge; so I will content myself with saying that he led me to read St. Thomas Aquinas and St. Anselm, and to recognize the wonderful philosophic abilities of the mediæval theologians.

§ 3. I will end this account of my philosophical development by enumerating those innate and acquired tendencies which seem likely to have warped my views. (i) I should say that I am much more susceptible to high achievements in science than in art. I am somewhat obtuse to the influence of scenery, painting, music, and the highest kinds of pure literature. I admit in the abstract that Shelley was as great a genius as Newton or Leibniz and a greater poet than Pope. But I can understand and enjoy in detail what is great in Newton's scientific work and in Pope's verbal felicity, whilst I have to take the greatness of Shelley or Keats largely on trust. I could quite easily be taken in by an inferior performer on their lyre. but I think I could see through second-rate science or inferior epigrammatic poetry. (ii) Closely connected with this is the fact that I am almost wholly devoid of religious or mystical experience. This is combined with a great interest in such experiences and a belief that they are probably of extreme importance in any theoretical interpretation of the world. (iii) I also intensely dislike and profoundly distrust all strong group emotions. (I think that this may be an excessive reaction against an unacknowledged tendency to feel them rather strongly.) This connects with the last-mentioned defect in the following way. There seem to be two fundamentally different types of religious person, of whom the Quaker and the High Churchman are limiting cases. I do not share the emotions and experiences of either, though I admire and respect many men of both types. But I find the Quaker type far the more intelligible of the two. To me a corporate institution is always at best a necessary evil, like the string of a kite, which cannot be dispensed with, but which ought to be as thin and light as possible. Hence the attitude which the High Churchman takes towards his Church, and which many Hegelians take towards

the State, is one which I simply cannot understand at all. They seem not so much to be describing something with which I am not acquainted as to be misdescribing something with which I am all too well acquainted. As many of them are obviously at least as intelligent as I, the whole business perplexes me very much indeed. (iv) I am fundamentally sceptical, and I feel no confidence in any elaborately reasoned system of metaphysics. Even when I cannot put my finger on any definite flaw in it, there is a still small voice within me which whispers "Bosh!" A great deal of so-called scepticism is simply a particular kind of dogmatism which leads men to reject all alleged facts which do not come within the sphere of recognized Mine is certainly not of that type. I have always been interested in the phenomena dealt with by Psychical Research, and the attitude of orthodox scientists towards them has always seemed to me ridiculous. This view has been strengthened by subsequent intercourse with the skeletons which inductive logic conceals in its cupboards. Thus my scepticism makes me far less ready to reject the abnormal than are most educated men of our time. A man must know a great deal more about the secrets of nature than I do to reject any alleged fact without investigation, however wild it may seem. (v) I tend naturally to take a somewhat gloomy view of the world and its inhabitants; and I have a particular horror of all attempts to argue from what ought to be, or what we should like to be, to what is or will be. Perhaps this sometimes leads me into the opposite mistake of regarding certain types of theory as improbable simply because they seem cheerful. (vi) Lastly, I have an extreme dislike for vague, confused, and oracular writing; and I have very little patience with authors who express themselves in this style. I believe that what can be said at all can be said simply and clearly in any civilized language or in a suitable system of symbols, and that verbal obscurity is almost always a sign of mental confusion. I agree with Dr. Johnson's remark about Jacob Boehme: "If Jacob saw the unutterable, Jacob should not have attempted to utter it." I think that this may prejudice me against some

writers who really are struggling to express profound ideas in imperfect language.

It is obvious that some of the characteristics which I have mentioned are grave defects in a philosopher, and that all have their dangers. There are evidently certain very important aspects of human experience which I can only know imperfectly through the descriptions of others, and never through my own personal acquaintance. The necessity of forewarning the reader against probable causes of error in my views must be my excuse for the apparent egoism of the preceding pages. do not imagine that my philosophical biography is of any intrinsic interest or importance: but it has a relative importance for anyone who troubles to read my philosophical writings.

CRITICAL AND SPECULATIVE PHILOSOPHY

- § 4. It seems to me that under the name of "Philosophy" two very different subjects are included. They are pursued by different methods, and can expect to reach quite different degrees of certainty. I am wont to call them Critical and Speculative Philosophy. I do not assert that either can be wholly separated from the other. The second quite certainly presupposes the first, and it is probable that in the first we tacitly assume some things that belong to the second. But they certainly can be separated to a considerable extent, and it will be best to begin by explaining and illustrating what I mean by each in turn.
- § 5. CRITICAL PHILOSOPHY.—In ordinary life and in the special sciences we constantly make use of certain very general concepts, such as number, thing, quality, change, cause, etc. Now, although we constantly use them and apply them with fair consistency, it cannot be said that we have any very clear ideas as to their proper analysis or their precise relations. And it is not the business of any of the special sciences to clear up these obscurities. Chemistry, e.g., tells us a great deal about particular substances, such as gold and aqua regia, and about their qualities and relations; but we should not go to a chemistry

book for a discussion on substance, quality, and relation. Chemistry simply assumes these general concepts as fully understood and concerns itself with particular instances of them.

Now it is certain that our ideas about such general concepts are highly confused, and this shows itself as soon as we try to apply them to cases which are a little out of the ordinary. We think we know what we mean by "place" and "person," for instance; and we do no doubt agree in the main in applying and withholding these terms. But suppose we are asked: "In what place is the mirror image of a pin? And is it in this place in the same sense in which the pin itself is in its place?" Or suppose we are asked: "Was Sally Beauchamp a person?" We find ourselves puzzled by such questions, and this puzzlement is certainly due in part to the fact that we are not clear as to what we mean by "being in a place" or "being a person." Similar difficulties could be raised about all the fundamental concepts which we constantly use. Thus there is both need and room for a science which shall try to analyse and define the concepts which are used in daily life and in the special There is need for it, because these concepts really sciences. are obscure, and because their obscurity really does lead to difficulties. And there is room for it, because, whilst all the special sciences use these concepts, none of them is about these concepts as such. I regard Critical Philosophy as the science which has this for its most fundamental task.

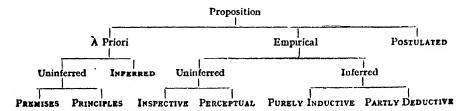
It seems to me that such a science is perfectly possible, and that it actually exists, and has made a good deal of progress. I will illustrate this with some examples. Since the time of Berkeley and Descartes philosophers have devoted much attention to the problem of the "Reality of the External World." I do not pretend that there is any agreed answer to the question among them, but their inquiries have been most valuable in clearing up the meanings of such terms as "matter," "sensible appearance," "sensation," "perception," "independence," etc. Any competent philosopher nowadays, whether he asserts or denies the independent existence of matter, is asserting or denying something far more subtle and far better analysed than

anything which Berkeley or Descartes would have understood by the same form of words. Again, we are not agreed on the right analysis of "cause"; but any view we may reach should be far subtler and clearer than that which could have been held before Hume wrote his classical criticism of this category. In making such statements I am, of course, referring to presentday philosophers who are really capable of appreciating and continuing the work of their predecessors. In any age there is plenty of philosophical writing which is far below the level of the best work of past ages. Moreover, there are fashions in philosophy, and even the best men of a certain period may ignore important results reached by the best men of a certain earlier period which happens for the time to be unpopular. Thus the philosophers of the Aufklärung neglected many important distinctions which the Scholastics had clearly recognized, and I think it probable that some of the summi philosophi of our time tend to neglect much fine gold which was mined by Kant and Hegel. Still, with these qualifications, it is pretty obvious that Critical Philosophy, as partly defined above, does make real and fairly steady progress.

§6. Now Critical Philosophy has another and closely connected task. We do not merely use unanalysed concepts in daily life and in science. We also assume uncritically a number of very fundamental propositions. In all our arguments we assume the truth of certain principles of reasoning. Again, we always assume that every change has a cause. And in induction we certainly assume something—it is hard to say what—about the fundamental "make-up" of the existent world. Now the second task of Critical Philosophy is to take these propositions which we uncritically assume in science and daily life and to subject them to criticism. In order to do this we must first clear up the concepts which the propositions are about. It is impossible to know what weight to attach to the proposition that "every change has a cause" until you have assigned definite meanings to the words "change" and "cause." It is often found that a man's certainty about such propositions is directly proportional to the vagueness of the terms concerned

in them. So the second part of Critical Philosophy is dependent on the first. No doubt it is also true that the first is dependent on the second. We clear up the meanings of terms by reflecting on the propositions in which they occur, just as we clear up the meanings of propositions by finding out the right analysis of their terms. I fancy that the two processes go on by alternate steps, very much as the development of thought and of language must have done in pre-historic times.

§ 7. When we have got a clear idea of the meanings of propositions which are commonly assumed, our next business as Critical Philosophers is to expose them to every objection that we can think of ourselves or find in the writings of others. As a result of such reflexion and criticism it seems to me that we can divide propositions roughly according to the following scheme.



By an à priori premise I mean some proposition such as "Colour cannot exist without extension." This expresses a connexion between two universals which is seen to be necessary by reflexion upon instances and which does not need to be deduced from anything else. By à priori principles I mean the principles according to which we pass from asserting one proposition to asserting others. This group therefore includes the principle of the syllogism, the fundamental axioms of probability, and so on. By inferred à priori propositions I mean those which can be deduced from à priori premises by means of à priori principles. The proposition that π is not a rational number is an example.

By an inspective empirical proposition I mean one which asserts of some particular existent with which the mind is acquainted at the time some property which the mind can notice by inspection to belong to it. Examples would be:

"My headache is of a throbbing character," "A certain one of the presentations of which I am now aware is red," and so on. Perceptual propositions are based on those particular existents about which we can make inspective judgments, but they make assertions which go beyond these existents and their properties. They are not reached by inference from inspective propositions; but, if we were called upon to defend them, we should do so by a mixture of inductive and deductive inference from such propositions. Examples would be: "That is a red pillar-box," "A man is talking to me," and so on. An inferred empirical proposition is one that is derived from a number of perceptual propositions either directly by pure inductive generalization, or indirectly by deduction from one or more inductive generalizations of the first kind. Examples of the two would be: "All living grass is green" and "The benzene molecule consists of six CH groups arranged at the corners of a regular hexagon."

I have included a third great division, viz. Postulates. The contents of this group are extremely puzzling to me. There are certain important general propositions, such as "Every change has a cause," "All sensa are appearances of physical objects," etc., which I tentatively put into this group. They seem to me to have the following characteristics: (i) I do not find them self-evident. (ii) I do not know of any self-evident premises from which they could be deduced by any known logical principles. Hence I cannot group them as à priori propositions. (iii) If they are to be grouped as empirical propositions they would have to come under the head of inferred empirical propositions. And this seems impossible for most of them. All inductions make some assumption about the structure of nature, which may be called the "Uniformity of Nature," for want of a better name. It would evidently be circular to try to prove such a proposition inductively. Again, any particular perceptual judgment may be defended by argument if we grant the general principle that all sensa are appearances of physical objects. But I can see no possibility of inferring this principle either inductively or deductively from the existence and correlations of sensa. (iv) On the other hand, it is equally impossible to

refute these propositions by argument. And (v) in practice everyone assumes them, and it is difficult to see that we could possibly unify our experience or that we should have any motive for carrying our researches further if we did not assume them to be true. I take these five characteristics as the marks of a postulate.

Now there is one suggestion that I want to make before leaving this subject. I do not think that we must identify necessary propositions with those which are self-evident or deducible by self-evident principles from self-evident premises. These properties seem to me to be tests (and the only available tests) for necessity. I would define an à priori proposition as one which is necessary and is recognized by us to be necessary. Hence à priority probably depends on two factors, viz.: (i) necessity, which is an intrinsic property of the proposition, and (ii) some special relation between the proposition and the mind which contemplates it. When this subsists the mind can see that the proposition is necessary, and so it is counted as à priori. Now there are some propositions which we can positively see to be necessary, e.g., the principle of the syllogism. There are many which we can positively see not to be necessary, e.g., that all grass is green or that a certain presentation of which I am now aware is red. But there are other propositions of which we cannot see either that they are or that they are not necessary, though they must of course be in fact one or the other. It is, e.g., a well-known fact that certain propositions in the theory of numbers which are now deduced à priori propositions were for many years accepted tentatively as the results of induction. It therefore seems to be possible that some at least of the postulates may be necessary propositions which higher or more favourably situated minds than ours would find self-evident or would be able to deduce from premises which they found selfevident. It is worth while to notice that there is a considerable analogy between the postulates and those à priori propositions which I have called "principles." The principles of deductive logic and of the theory of probability happen to be self-evident to us. But, if they had not been, we should certainly have had

to put them in the group of postulates; for we evidently could not have made a step forward in unifying our experience without them. It does therefore seem possible that the analogy may be reversible, and that some of the postulates may really be necessary principles which only fail to be counted as à priori because we cannot see their necessity. Postulates may be called "hypothetically necessary"; i.e. they are necessary for the purpose of unifying our experience. À priori principles are hypothetically necessary, in this sense, and also intrinsically necessary, as is shown by their self-evidence. What I have been saying is that some at least of the postulates may also be intrinsically necessary, although we are not capable of seeing that this is so.

Suppose now that we take "necessary" and "contingent" to express intrinsic characteristics of propositions, and "certain" and "possible" to express subjective degrées of conviction in a rational but limited mind. We might then make the following statements. (i) A priori propositions are those which are certainly or almost certainly necessary. (ii) Empirical propositions are those which are certainly contingent. (iii) Postulates are those which are possibly necessary. Now, if we are certain of the necessity of a proposition, we are ipso facto certain of its But to be certain of the contingency of a proposition implies nothing about our conviction of its truth. We may be certain that a proposition is contingent, and at the same time certain that it is true. I may be as certain that my headache is of a throbbing character as that $2 \times 2 = 4$, although the former is certainly contingent and the latter is certainly necessary.

§ 9. To sum up. (i) There is always a general possibility of error even about uninferred à priori propositions. It is admittedly possible to think that a proposition is necessary when it is not. This general difficulty is not a legitimate ground for doubting any specific proposition; provided that we have honestly exposed it to all the objections that we can think of. But it is a ground for being always ready to re-open the question if fresh specific objections be brought to our notice. (ii) An

inferred à priori proposition is always less certain in proportion to the length and complexity of its proof. As Descartes pointed out, I have to trust my memory at the later stages for the conviction that the earlier steps were self-evident. Now, memory-propositions are empirical, and, for our purpose, must be classed with perceptual propositions. Thus the certainty of inferred à priori propositions is conditional; they are certain provided we can trust our memories, and that we have not deceived ourselves over any of the steps. (iii) Inspective propositions are practically certain provided they confine themselves to the positive non-relational characteristics of presentations or states of mind. The moment they go beyond this they are liable to error. Stumpf's argument shows that we can judge two sensa to be exactly alike when they are really different in intensity. Again, it would be perfectly possible to think that a sensum is uniformly red or exactly round when it is not. For these involve negative assertions, and more inspection will not guarantee them. Thus inspective propositions, though certain, tend to be very trivial. (iv) Perceptual propositions are still less certain. If I make the judgment: "This which I see is a pillar-box," I may be wrong in the following ways: (a) I may be basing a perceptual proposition on a mere image or on an hallucinatory sensum. (β) I may be misinterpreting a genuine sensum. The red pillar-like sensum may be due to a skilful painting on a flat canvas. (γ) The general assumption that all sensa are appearances of physical objects is only a postulate, and may be wrong. There may be no physical objects. (v) It is evident that inferred empirical propositions must have all the weaknesses of perceptual propositions together with others of their own. For their ultimate premises are perceptual propositions, and from these we reach inductive generalizations in accordance with the à priori principles of probability. But it is quite easy to show that these will not justify us in assigning any finite probability to inductive generalizations unless we also assume certain premises about the structure of nature. And, as we have seen, another postulate has to be made to justify the original perceptual propositions which the inductive

proposition professes to generalize. Of course this is quite compatible with the fact that *some* inductive propositions may be more certain than *some* perceptual propositions. It is more reasonable to believe strongly that I *shall* be ill if I swallow arsenic than to believe strongly that a conjuror has really pounded my watch in a mortar and restored it to me, although I seem to have seen him do so.

§ 10. It is worth while to remark that sometimes it is quite certain that propositions of some kind are being assumed, and yet it is by no means easy to say exactly what these propositions are. In such cases the first business of Critical Philosophy is to find these assumptions and to state them clearly. This is one of the main difficulties of the theory of induction. Nearly every one was agreed that something, which they called the "Uniformity of Nature," was presupposed in all inductions. But (a) no one stated clearly what they meant by this; and (b) most writers seemed to think that nothing further was needed except the ordinary principles of deductive logic. It has therefore been an important talk of Critical Philosophy to show (a) that inductive arguments can only be valid if they state their conclusions in terms of probability, and that they therefore use the principles of probability; and (b) that, if they do not also use some premise about nature, they will be unable to give any finite probability to their conclusions. The way is then clear for seeking the assumptions about nature which would suffice to give a reasonably high probability to the conclusions of generally accepted inductive arguments. It is easy to show that something more concrete than the Law of Causation is needed, and that the assumption of something like Natural Kinds at least is necessary. Finally, we are in a position to estimate the kind and degree of evidence which there is for such assumptions.

§ 11. It seems to me that we can lay down two useful general methods in Critical Philosophy. I will call them the *Principle* of Exceptional Cases and the Principle of Pickwickian Senses. I will now illustrate them with some examples. (i) If we want to clear up the meaning of some commonly used concept it is

enormously important to see how it applies to exceptional and abnormal cases. E.g., let us take the concept of "being in a place." This is commonly applied to things like pins and chairs, and it seems to be a simple two-term relation between a thing and a place. But now suppose that we ask: "Where is the mirror-image of a pin; and is it in its place in the same sense in which the pin itself is in its place?" It seems plausible to answer that the place where the image is is as far behind the mirror as the place where the pin is is in front of the mirror. At once two difficulties arise. (a) If you go to the place where the pin is said to be you can touch something correlated with the visual appearances which have guided you to this place. But, if you go to the place behind the mirror where the image is said to be, you may touch nothing or you may touch a brick wall. You will certainly not feel anything like a pin. (b) If you approach the place where the pin is said to be from any direction there will be a series of visual appearances which continues till you reach the place. But, if you approach the place where the image is said to be, you will find (a) that it is only from certain directions that any visual appearance resembling the pin is there, and (β) that from all directions of approach the series of visual appearances stops before you reach this place. Now in theory you could either take the sense in which the pin is in its place as fundamental, and try to explain the sense in which the image is in its place by making a number of supplementary hypotheses; or you could take the sense in which the image is in its place as fundamental, and regard the facts which are true of the pin and not of the image as due to the fulfilment of certain special conditions which need not be realized but which in fact generally are. The latter seems to be the only hopeful course to take. It leads us to two conclusions. (a) A perceptual object consists of several correlated components: one visual, one tactual, and so on. Generally the visual, tactual, and other components are all in the same place in important and definable (though different) senses. But they may be in different places when certain special simplifying conditions (homogeneity of the medium, etc.) are not ful-

filled. (b) "Being in a place" is not a simple two-term relation between a visual appearance and a place. It is really at least a three-term relation, viz., "being in place x from place y." Under special conditions, which happen to be often very nearly realized, there are similar visual appearances in a place from all places within a certain range. This is true of the pin. With a plain mirror we get a more general and less simple case. We have (a) similar visual appearances in a place from many, but not from all, directions. (β) There are no such appearances in this place from any place behind the mirror. (y) There is no correlated tactual object at the place. The commoner, but more special, case is explained by the existence of a special set of simplifying conditions, which we refer to as the "homogeneity of the medium." This way of looking at the facts might be compared to regarding a circle as a specially simplified instance of the general conic section. Once you know the properties of the general conic you can deduce all the properties of the circle; but, if you insist on starting with the properties of the circle you will find a great deal to puzzle you in the properties of the general conic. Another example would be given by the study of multiple personality, telepathy, and other abnormal psychical phenomena. If we start with the view, which purely normal cases suggest, that every human body has one and only one self connected with it, and that this self is a completely unified continuous existent, we shall find the abnormal phenomena most difficult to deal with. But if we start from the other end, and regard the normal cases as due to special simplifying conditions which happen to be generally fulfilled, we may be more successful.

Oped by pure mathematicians in their attempts to define such things as irrational numbers. They saw that any entity which has the same formal properties as $\sqrt{2}$ and $\sqrt{3}$ are supposed to have can be taken to $be \sqrt{2}$ or $\sqrt{3}$, even though its internal structure be very different from that which people had commonly assigned to irrationals. Thus they define $\sqrt{2}$ and $\sqrt{3}$ as certain series of rationals, and show that such series have to each other

relations of the kind which irrationals are supposed by everyone to have to each other. The advantage of this definition is that . it is quite certain that something exists which answers to it, whereas with other definitions of the same entities this cannot be shown to be so. Now of course most people do not think of irrationals, like $\sqrt{2}$ and $\sqrt{3}$, as series of ordinary numbers. but as a special kind of number. Hence, when we call certain series of rationals by the name of "irrational numbers," we may be said to be using the phrase in a "Pickwickian sense." (The name is due to Dr. Moore.) This principle has always been familiar in Theology. When theologians say that the Second Person of the Trinity is the son of the First Person, they are using the word "son" in a highly Pickwickian sense. Anyone who will read, e.g., St. Thomas's brilliant discussion of this subject in the Summa contra Gentiles will see how careful St. Thomas is to point out in his own language that phrases like "sonship" and "begetting" cannot be interpreted literally here, and will further see what an elaborate and metaphorical interpretation St. Thomas puts upon such phrases. Now 1 Whitehead and Russell have explicitly carried this principle over into philosophy, where I am quite sure that it is destined to play a most important part. Whitehead has used it to define points, moments, etc., and has succeeded in giving Pickwickian senses to these terms, in which it is certain (a) that they exist; (B) that they have to each other the sort of relations which we expect points and moments to have; and (γ) that there is an intelligible and useful, though Pickwickian, sense in which we can say that volumes are "composed of" points, and durations of moments. This seems to me to be one of the most important steps in the philosophy of applied mathematics.

Russell has used much the same method in dealing with the still harder problem of the nature of matter, and the relation of a bit of matter to its various sensible appearances. I am not prepared to accept Russell's theory as it stands, because I think it still fails to do justice to the extreme complexity of the problem. But I think we can safely say that any tenable theory of matter can only admit its existence if it be defined

in a highly Pickwickian sense. Even on the ordinary scientific view the statement that pillar-boxes are red must be interpreted in an extremely Pickwickian way before it can be accepted; and more critical reflexion shows that still more radical modifications are needed in the common-sense view of the nature of matter. Thus the problem of matter and our perception of it seems to come to this:—"To define a Pickwickian sense of 'matter' in which (a) pieces of 'matter' shall have to each other the kind of relations which physics requires them to have; (b) the variability and privacy of its sensible appearances shall be compatible with its relative constancy and its neutrality as between all observers; (c) justice shall be done to the apparent dependence of its appearances on the physiological condition of the observer and the variations of the medium; and (d) the minimum amount of purely hypothetical entities shall be postulated."

It is most important to understand that questions like: "Does matter exist?" or "Is the self real?" cannot be answered with a simple Yes or No. Unquestionably there are facts in the world to which the names "matter" and "self" apply; and in that sense they are names of something real. But it is vitally important to distinguish between facts and the proper analysis or description of facts. The words "matter" and "self," as commonly used, do suggest certain theories about the facts to which they are applied. These theories are never clearly recognized or explicitly stated by common-sense; and, on critical analysis, they are often found to consist of a number of propositions of very different degrees of importance and certainty. E.g., I think there is very little doubt that the word "self," as commonly used, implies something like the Pure Ego theory of the structure of those unities which we call "selves." Hence anyone who rejects the Pure Ego theory is, in one sense, "denying the reality of the self." But, if he offers an alternative analysis, which does equal justice to the peculiar unity which we find in the things called "selves," he is, in another sense, "accepting the reality of the self." Whenever one particular way of analysing a certain concept has been almost universally, though tacitly, assumed, a man who rejects this analysis will seem to others (and often to himself) to be rejecting the concept itself. Thus James raises the question: "Does Consciousness Exist?", and suggests a negative answer. But really neither James nor anyone else in his senses doubts the existence of certain facts to which we apply the name "consciousness." The whole question is: "What is the right analysis of these facts?" Do they involve an unique kind of stuff, which does not occur in non-conscious facts; or is their peculiarity only one of structure?" To deny the first alternative is not really to deny the existence of consciousness; it is merely to deny an almost universally held theory about consciousness. Philosophy seems to me to be full of unprofitable discussions which depend on a failure to recognize this kind of ambiguity; and the Principle of Pickwickian Senses has the advantage that it forces the distinction on our notice.

§ 13. It remains to say something about the relations of other sciences to Critical Philosophy. It is clear that logic and ethics are simply branches of Critical Philosophy. Logic is its most general and fundamental part, being the science which classifies and analyses proportional forms and discusses their formal relations to each other. Now all sciences consist of propositions which are of various forms and stand in such relations that some are supposed to "follow from" others. But no other science is about propositional forms or their formal relations. Thus logic deals with the most fundamental of all concepts, and with those à priori principles which form the connective tissue of all knowledge. Ethics is that part of Critical Philosophy which tries to analyse the concepts and appraise the assumptions which are involved in our judgments of moral value.

The distinction between mathematics, physics, or chemistry, and what is called "the philosophy of" these sciences is, I think, pretty clear. But, as we pass to the more concrete and less advanced sciences, the distinction becomes in practice less definite. Discussions about mechanism and vitalism, e.g., are in part at least questions of Critical Philosophy, and yet

they appear in books on biology. I think that psyhology is wrongly counted as a part of philosophy; it is strictly a natural science based on observation and induction. But any standard work on psychology is full of discussions which really belong to Critical Philosophy. Attempts to analyse and define sensation, perception, selfhood, etc., belong to Critical Philosophy: but it is quite impossible for the psychologist to avoid them, for these concepts are not, like those of physics, clear enough to be used for ordinary scientific purposes without risk of error. It is generally a bad thing when a science and the philosophy of that science are mixed up with each other, because two very different kinds of problems must then be dealt with by the same man, and hardly anyone combines the special aptitude and knowledge needed for both. We are all familiar with the nonsense which eminent philosophers have talked about scientific questions; it is only equalled by the nonsense which eminent scientists continually talk about philosophical questions. I

§ 14. SPECULATIVE PHILOSOPHY.—It is quite evident that what I have been describing under the name of Critical Philosophy does not include all that is understood by philosophy. It is certainly held to be the function of a philosopher to discuss the nature of Reality as a whole, and to consider the position and prospects of men in it. In a sense Critical Philosophy presupposes a certain view on this question. It assumes that our minds are so far in accord with the rest of Reality that by using them carefully and critically we approach nearer to the truth. But it is still clearer that Speculative Philosophy presupposes a considerable amount of Critical Philosophy. Its business is to take over all aspects of human experience, to reflect upon them, and to try to think out a view of Reality as a whole which shall do justice to all of them. Now it is perfectly useless to take over the scientific, social, ethical, æsthetic, and religious experiences of mankind in their crude, unanalysed form. We do not know what they mean or what weight to attach to various parts of the whole mass till we have submitted them to a critical analytic investigation. Two results follow at once from this consideration. (i) We cannot admit the

claim of any system of Speculative Philosophy to be the final truth. The best of them will be guesses at truth, and will be subject to modification as more facts are known, and as known facts become more and more fully analysed and criticized. (ii) We must always admit the possibility that Critical Philosophy has not yet been carried far enough to make any attempt at Speculative Philosophy profitable.

§ 15. There is another general point which it seems important to notice. I think that, in different forms, it plays a vital part in such different philosophies as those of Mr. Bradley and M. Bergson, and in the thought of most great theologians, whether Christian or non-Christian. This is the question how far the discursive form of cognition by means of general concepts can ever be completely adequate to the concrete Reality which it seeks to describe. Thought must always be "about" its objects; to speak metaphorically, it is a transcription of the whole of Reality into a medium which is itself one aspect of Reality. We are bound to think of Reality as a complex of terms having various qualities and standing in various relations; because, if we do not think of it on these lines, we cannot think of it at all. With Mr. Bradley's attempt to show that this scheme involves internal contradictions I do not agree. But I do see clearly that we have only to compare a tune, as heard, or an emotion, as felt, with any conceptual description which we can give of them, to recognize how inadequate every conceptual description of Reality must be to Reality itself. When we can both be acquainted with something as a whole and can analyse and describe it conceptually, this difficulty is at its minimum. But we cannot be acquainted with Reality as a whole, as we can with a tune or an emotion, and therefore the difficulty is at a maximum in Speculative Philosophy. limitation of the whole conceptual scheme is one which we must simply recognize once and for all and then ignore. We cannot avoid it in detail, and we cannot understand in outline any other kind of cognition. Since it is perfectly general, it applies equally to every system of Speculative Philosophy, and therefore gives us no ground for preferring one to another.

- § 16. It has been held by many philosophers, e.g., Spinoza and Hegel in the past and Dr. McTaggart at present, that important results about the structure of Reality as a whole can be reached by deductive arguments from self-evident premises. The best general account of such a view will be found in Dr. McTaggart's Nature of Existence. I do not think that this view can be refuted; it is theoretically possible, so far as I can see. But I am completely sceptical about its practicability. I feel pretty certain that all known attempts to elaborate a system of Speculative Philosophy on these lines either contain logical fallacies, or introduce premises which are ambiguous and only become self-evident when so interpreted as to be trivial. And I have not the slightest expectation that future essays in this direction will be any more successful.
- § 17. It seems to me that the main value of Speculative Philosophy lies, not in its conclusions, but in the collateral effects which it has, or ought to have, on the persons who pursue it. The speculative philosopher is forced to look at the world synoptically, and anyone who does not do this at some time in his life is bound to hold a very narrow and inadequate idea of Reality. This is a danger to which the natural scientist is peculiarly liable. The extraordinary success of physics and chemistry within their own sphere tempts men to think that the world is simply a physico-chemical system. These sciences, quite rightly for their own purposes, ignore the existence of minds; and scientists are liable to forget that somehow minds have grown up in a world of matter, and that it is by means of their activities that matter and its laws have become known. If a man referred to his brother or his cat as "an ingenious mechanism" we should know that he was either a fool or a physiologist. No one in practice treats himself or his fellowmen or his pet animals as machines, but scientists who have never made a study of Speculative Philosophy seem often to think it their duty to hold in theory what no one outside a lunatic asylum would accept in practice. If we remember that physics and chemistry are simply constructed to unify the correlations which we find among a selection of the sensa of

three or four senses, the idea that these sciences give a complete account of the structure of all Reality becomes ludicrous. Thus our inability to explain the facts of life and mind in purely physico-chemical terms is not a paradox to be explained away, but is what might reasonably have been expected from the outset.

On the other hand, the man who starts from the side of mind is equally liable to fail to do justice to the facts. The properties with which physics and chemistry deal are very pervasive, and we do know them more accurately and thoroughly than we know anything else. And minds are very closely bound up with certain bits of matter, viz., our brains and nervous systems, and they do seem to have gradually developed in a world which once contained nothing but matter. The characteristic fault of Idealism is to be unable to see the trees for the wood, and the characteristic fault of Realism is to be unable to see the wood for the trees. The great merit of Idealism is that it really has tried to do justice to the social, ethical, æsthetic, and religious facts of the world. The great merit of Realism is that it really has tried to face in a patient and detailed way the problem of matter and of our perception of it. But neither of these activities is a substitute for the other; and a genuine Speculative Philosophy must combine the detailed study of the lower categories with the due recognition of the higher categories, and must try to reconcile the pervasiveness of the former with the apparently growing importance of the latter.

§ 18. There is one thing which Speculative Philosophy must take into most serious consideration, and that is the religious and mystical experiences of mankind. These form a vast mass of facts which obviously deserve at least as careful attention as the sensations of mankind. They are of course less uniform than our sensations; many people, of whom I am one, are practically without these experiences. But probably most people have them to some extent, and there is a considerable amount of agreement between those people of all nations and ages, who have them to a marked degree. Of course the theoretical interpretations which have been put upon them are

very varied, and it is obvious that they depend largely on the traditions of the time, place, and society in which the experient lives. I have compared the experiences themselves with sensations; we might compare the common features in the interpretations which have been put upon them with our ordinary common-sense beliefs about matter; and elaborate systems of theology might be compared with big scientific theories, like the wave theory of light. Obviously there remains a further step to be taken, comparable with the philosophic criticism and interpretation of scientific theories about matter. reasonable to suppose at the outset that the whole mass of mystical and religious experience brings us into contact with an aspect of Reality which is not revealed in ordinary senseperception, and that any system of Speculative Philosophy which ignores it will be extremely one-sided. In fact it cannot safely be ignored. If we count all such experiences as purely delusive, we must explain how such a widespread and comparatively coherent mass of illusion arose. And, if we find it impossible to take this view, we must try to understand and criticize these experiences; to sift away those factors in them which are of merely local and temporary interest; and to see what the residuum has to tell us about the probable nature of Reality. The great practical difficulty here is that those who have the experiences most vividly are seldom well fitted for the task of philosophical criticism and construction; whilst those who are fitted for the latter task are not often mystics or persons of religious genius. It is alleged, and it may well be true, that the capacity for such experiences can be cultivated by a suitable mode of life and a suitable system of training and meditation. In so far as this can be done without detriment to the critical faculties it deserves the serious attention of philosophers; for theories which are built on experiences known only by description are always unsatisfactory.

PRINCIPAL PUBLICATIONS

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IDEALISM AS A PRINCIPLE IN SCIENCE AND PHILOSOPHY

By H. WILDON CARR

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BIOGRAPHICAL

My interest in philosophy is not due to any professional incentive and is not the result of any definite choice in connexion with vocation or inclination. My father, when I was five years old (I am the eldest of a large family), gave up his membership of the Stock Exchange, where he was engaged in a moderately remunerative business, in order to become the minister of a chapel of the Baptist denomination. He was well educated for his posi-He had been an ordinary schoolboy at the Merchant Taylors' School, and when he left school to become a clerk in an office, he had spent his leisure in attending such evening courses as were then available and more especially in the mutual improvement societies which were encouraged by the religious denominations. He felt he had a call to the ministry and obeyed it. He was not unsuccessful as a preacher, but he found his family increasing, and ways and means becoming urgent. When I was eleven years old, he retired from his pastorate and returned to London to his former business. From that time and to the end of his life he was closely associated with his friend C. H. Spurgeon, the famous preacher. I learned from my father to feel the strong attraction which Calvinism has for a mind religiously inclined and logically disciplined. I think in this my experience is singular, for I find that most of those whom I know who have been brought up under Calvinist influence have strongly reacted against it. My father had a large library consisting almost entirely of the works of Puritan theologians and it was my delight. Before I was sixteen I had experienced conversion along much the same lines as are described by St. Augustine in the "Confessions," and I was duly baptized and received into the congregation, or rather, as we were taught to say, into the Church. Shortly before, I had left the Stationers' Company's School, then housed in Bolt Court, Fleet Street, Dr. Johnson's locality. I had reached the position of head boy, and had obtained a scholarship. Our circumstances, however, made the idea of proceeding to the University quite impossible, and I became a clerk in the City, at first in an accountant's office, and then with a Stock Exchange firm. As soon as I was settled in my business occupation I

joined the evening classes department of King's College, matriculating as a student and proud of the privilege of wearing, when my work in the City was done, the college cap and gown. I continued the study of Latin, Greek and German, but my chief interest was science. It was, however, to the Rev. E. P. Scrymgour, then lecturer on English Literature, that I owed my first acquaintance with philosophy proper. I recollect the kind of dismay and awe with which I saw the vista opened of that new interest, the great historical development of philosophical speculation. When my course was completed and I received the Associateship of King's College, I was awarded the Cunningham prize, given to the Associate of the year with the highest marks for his whole period. I was allowed by the donor to choose my prize and I selected Professor Fraser's edition of Berkeley. I read it through. It was my first real introduction to philosophy.

I continued to study in the evening classes at King's College, and my friendship with the lecturer in English Literature developed into a close personal one. He introduced me to the Aristotelian Society, and as this Society has been the centre of my philosophical interest and of my philosophical development I must explain how it was founded and how I came into it. It was not, in its first intention, a learned Society nor had its founders any ambition to make it one. In the spring of 1880 a group of eight young men had held a preliminary meeting in the chemical laboratory of Dr. Alfred Senier in Bloomsbury Square. They were not philosophers nor even students of philosophy, but men of various occupations who had conceived the idea of forming a society for the systematic study of philosophy by reading and discussion. The Society was in its second year when I joined it and had entered on a course of serious and earnest study under the general direction of the President, Mr. Shadworth H. Hodgson. We met fortnightly in a small room in John Street, Adelphi. We had no original papers, but took it in turns to open a discussion on some previously-arranged philosopher or philosophical work. few years we became known, recognized authors joined us, and gradually our meetings came to be the occasions for original communications. In 1884 I was elected a Vice-president and in 1886 I was appointed Honorary Secretary. The Aristotelian Society has therefore attached me throughout my life to philosophy as my central interest.

In 1907 I was fifty years old, I had been successful in my business on the Stock Exchange, and already for a few years I had been withdrawing from active work and devoting my time to the work of the Stock Exchange Committee on which I had the

honour of serving. I was well read in philosophy-my favourite philosophers were Plato and Hume-but beyond general and continuous interest in philosophical theories, I had no direct intention of devoting the remainder of my life to the profession of philosophy. There occurred to me at this time, however, an experience which had an effect on my future of which at the time I had no suspicion. It was almost accidental. I was walking in Paris and in passing a book-shop was attracted by Bergson's Evolution Créatrice. I had heard of Bergson; I had seen his earlier books in the library of a friend and been told of their striking originality, but as yet I had not read one of them. bought the book and read it in my hotel, and it produced the experience of a new conversion. The whole philosophical problem was transformed, irradiated with light. I found myself possessed with a new enthusiasm. I was not, of course, the only one to feel that Bergson had given a new direction to philosophy. fact I was rather late in my discovery. Bergson had already an enormous reputation in France, and William James, in his own brilliant way, was making him known in America and also in lectures at Oxford. An article which I published in the Hibbert Journal chanced to attract Bergson's notice, and led him to write and ask me if I would look over the final proof sheets of the English translation of Evolution Créatrice, which was then already printed in the paged form for publication. The task proved to be a long and difficult one. Sheet by sheet was carefully revised, questions of meaning arose, often involving long explanatory letters between us, and I fear the expense of production was largely increased, for the revision involved practically the re-setting. It was in this way that I saw opening before me the possibility of devoting the remainder of my life to original work in philosophy, and I retired from business and gave up my membership of the Stock Exchange. Shortly afterwards, I accepted the invitation of the publishers of the People's Books to write the small volume on Bergson. Following this I wrote for the same series the volume on The Problem of Truth. My friend Sidney Webb also at this time asked me to give a course of lectures on Bergson's Philosophy at the School of Economics. I accepted, although lecturing was an entirely new experience to me, but I soon discovered that whatever benefits lecturing might confer on the audience it had a real and substantial value for the lecturer in giving shape to his thoughts and affording him a practical test of the workability of his ideas. It was then I wrote The Philosophy of Change. The war brought me the opportunity, with its strong inducement to offer service in the national emergency, of undertaking teaching work. Dr. William Brown, the Head of the Department of Psychology at King's College, had volunteered and been accepted for service in the Army Medical Corps and was anxious to find a substitute in order to enable him to go at once to the front. He pressed me to take over his classes, and in this way my teaching work in King's College began. In 1918 I was appointed by the University of London Professor of Philosophy in recognition of work for King's College which it has been my greatest pleasure and privilege to be able to offer, and to have had accepted, as honorary.

My own philosophy has taken form therefore in my later years. Besides the influence of Bergson, two other contemporary movements, one purely philosophical, the other primarily scientific, have contributed to determine its direction and development. The first is the new idealism of the Italians, Benedetto Croce and Giovanni Gentile, the second is the principle of relativity formulated by Einstein. My first introduction to Croce's philosophy was at the International Congress of Philosophy at Heidelberg in 1908. and my first acquaintance with the new revolution in mathematical physics was Langevin's paper L'évolution d'espace et du temps at the Congress at Bologna in 1911. My study of Croce led me to write The Philosophy of Benedetto Croce and later to translate Gentile's Theory of Mind as Pure Act. My book on The General Principle of Relativity was an attempt to show how the inherent difficulties in the ordinary concepts of the framework of nature had led to the new formulation and that the principle, though outwardly practical and experimental, is in its basis philosophical. Lastly, in my Theory of Monads I have made my own attempt at a philosophy of life and knowledge. I do not claim for it systematic completeness and finality, for in my view of thought and existence such a claim would condemn it a priori. The ideal of philosophy, as I aspire to it, is to find the right way of asking questions, not the final way of answering them. What appears to me, however, to mark a distinct achievement in the philosophy of the present time and to be a higher level from which the prospect opens of a great stride forward in constructive theory. is the convergence on a common standpoint of the two independent lines of the search for truth-experimental science, with its bias for the positive and real; speculative philosophy, with its bias for the transcendent and ideal.

AND PHILOSOPHY

THE old legend declared that God created man in His own image. The new principle of relativity regards the science of the physical world as the systematization of experience by individual observers from individual standpoints. The old philosophy declared that man is the measure of all things. The new principle of relativity declares that anything to be an object of physical science must be not merely measurable, but itself a measurement, and a measurement is only definable in terms of the measuring. The truth which underlies the philosophical and the scientific expressions is one and identical, but philosophy and science in reaching it have followed different routes, divergent alike in direction and in aim. There is a sense in which philosophy is always a reflexion of science, and yet it has a different rhythm and is seldom found pulsating in unison. It is only when some new scientific discovery revolutionizes our mode of thinking that we are suddenly brought back to first principles, physics is found to depend on metaphysics, and philosophy and science are joined together. the Copernican hypothesis was the fulcrum and starting-point of the scientific and philosophical development of the seventeenth century; and the electro-magnetic theories of the nineteenth century, with their striking confirmation by observation and experiment in the twentieth century, are compelling us in philosophy to new reflexion on the nature of the reality of the physical universe. We are called upon to rethink the old problems in terms of the new science.

The new idealism,—by which I mean the idealism which is

not the revival or advocacy of an old theory, but the actual application of a philosophical principle to a present scientific problem,—is the interpretation of this new way of thinking the physical reality of the universe. It claims to be able to express the nature of the physical object without derogating in any way from the positivity of physical science. positivity of science I mean the absoluteness of science within its own domain, however relative the postulates on which it ultimately depends. In declaring all reality to be ideality, idealism does not therefore imply that objectivity is a subjective illusion, or that the framework and content of the universe is such stuff as dreams are made of; on the contrary, it affirms that the real is the ideal because only the ideal is concrete, and every attempt to set up the object as reality in complete independence of the subject of experience and of the conditions of experiencing is in vain. Success could only be the hypostasization of an abstraction. Abstractions are not unreal in the absolute sense, but it is in their claim to independent reality that the antinomies of ordinary thought arise.

The most important factor in the philosophical situation of the present time is the new scientific concept of the physical object. The problem of physical reality is being presented to us by science in an entirely new form, and one which does not raise the peculiar difficulty in regard to theory of knowledge which during three hundred years of continuous philosophical speculation we have not succeeded in dispelling. When Descartes distinguished two substances,—a thinking substance, receptive of ideas, and an extended substance, receptive of movements,he gave to science the concept of a mechanistic universe, which has proved of incalculable service and fruitfulness, but in doing so he bequeathed to philosophy an insoluble problem concerning the origin and validity of ideas. In the eighteenth century, in the idealism of Berkeley and the scepticism of Hum, this problem gave rise to the dilemma of idealism and realism, and this dilemma still confronts us in the philosophical controversies of the present day. Science, a practical interest, impatient of dialectical disquisitions, unimpressed by the necessity of

securing its logical foundations, satisfied if it can possess a working hypothesis, has consistently and resolutely refused to be concerned with it. Newton had satisfied scientific inquirers that simple observation, and experiment based on observation, are sufficient to establish the universality of a law of gravitation, and he had claimed to dispense with hypotheses and to eschew metaphysics. Science seemed justified therefore in assuming, on the ground of self-evidence, the Newtonian conception of an absolute framework of physical reality, viz., a Euclidean space and an evenly-flowing time within which velocities might vary from zero to infinity. On this foundation science was successful in establishing its claim to be positive.

The protest of philosophy was raised even in Newton's own time, and it was not confined to negative criticism. Leibniz, for the first time in the history of philosophy, propounded a theory of the objectivity of the universe without resorting to the notion of a formal and material external existence, in the theory of the monads. So far as philosophy is concerned, Leibniz proved that the atoms of the material world are not bits of extension or occupants of a definite portion of an absolute void. The monads, or simple substances, which are the true atoms of nature, are active forces, centres of self-expressing activity, self-enclosed, with no external reality impressing them from without or mirrored by them within. Each monad includes and governs by its own law the whole of its presenta-The common universe is not a picture presented to all the monads, but the expression of the functional correspondence of the monads in their internal activity. Each monad is a completely enclosed world, but the different worlds express a common universe and a common truth because they correspond functionally in their inner relations. The activity of the monad consisted, he said, in perception and in appetition, and the universe of the monads was a harmony of internal forces, not an aggregation or addition or juxtaposition of mutually exclusive components.

Leibniz's argument was not purely speculative and metaphysical; he appealed to observation and experiment. If all spaces and all times are parts of one universal space and of one universal time, then the increased power of discernment which the microscope puts at our disposal should tend to reveal more and more definitely the absolute divisions of the material continuum; but this is not what we find. The microscope reveals new worlds, new realms of activity, new view-points, each complete and each adapted to an individual activity, but also each providing its own dimensions for its own active subjects. These worlds are within our world, and yet not of it. The space and time of these worlds are identical with our space and time, and yet not components of it. By no means of summation or mathematical relation can these manifold spaces and times be compounded into a homogeneous space-time, one and universal.

The objectivity of the physical universe is then entirely constituted of the expression by active subjects of experience of their internal mode of activity, and the universality and community of the universe is a function of the internal nature of the monads. A century later this doctrine found expression in the Kantian philosophy in the well-known maxim that it is the mind which gives laws to nature. Kant did indeed reject the monadic theory of Leibniz as inconsistent with the theory that knowledge is only of phenomena,—for if there are monads we know things-in-themselves,-nevertheless Kant's theory of the mind's a priori activity is essentially Leibnizian. The profound significance of Leibniz's doctrine, however, as offering a sound basis for the construction of physical science, was completely lost sight of in consequence of the fantastic appearance the monadic system assumed when a deus ex machina had to be introduced to account for a pre-established harmony.

In physical science to-day the telescope and the spectroscope are disproving the working hypotheses and the mental assumptions which have been accepted hitherto in physics, and which have seemed not only necessary but conditioned by the laws of thought itself, as completely as the microscope seemed to Leibniz to disprove the old Democritean theory in its modern Newtonian form. The telescope and spectroscope introduce

us in fact to new systems of relative movement to which our standards of space and time measurements are simply nonadjustable. The clock to which we on earth are attached. that is, the earth itself, which by its rotation and revolution enables us to measure even, equal, lapses of time—the rigid footrule, which enables us to determine equal spatial intervals in any direction, carry no fixed and determinable value when we transfer them to other systems, because they have no relation to an absolute independent system comprehending all systems and apprehensible by all observers of natural events. Science by the purely scientific method of observation and experiment, without any admixture of speculative metaphysics, and without any appeal to a priori arguments, has discovered that it cannot formulate the laws of nature by simple reference to space and time, for these are not realities which can be measured by standards of universal validity. It is as impossible to correlate the space and time of relatively moving systems of reference with the system of a hypothetical immobile ether as it is to correlate the worlds of microbial activity revealed by the microscope with the world of our own activity. Science has been driven by the necessity inherent in its own character of positivity to find another basis for the objectivity of nature. It has formulated the principle of relativity.

This new principle is that the objectivity of nature and the uniformity of its laws depend on invariant relations transferred from one frame of reference to another, and not on any identity of the terms, formal or material, which enter into the relations. The continuity of the physical universe, therefore, is not dependent on the homogeneity and infinite divisibility of space and time, nor on the mobility of matter, nor on the immobility of ether, but on the functional expression of internal active forces. The phenomena of nature present themselves as external events, and these are co-ordinated by each observer taking the frame of reference to which he is attached, as a system at rest. The standard or norm must therefore be found ultimately in the subject of experience whose activity requires the co-ordination of his world, and not in the world which he

co-ordinates. The principle of relativity is of necessity pivoted on recognition of the activity of the observer attached to his frame of reference.

In declaring this principle to be idealism in science, it is clear that I am imparting a new meaning to the term idealism at the same time that I am implying a new interpretation of scientific truth. Idealism does not indicate an elusive, shadowy, dream-like, vagueness in scientific truth, an absence of substantiality and mathematical precision; on the contrary, it indicates the way in which alone the abstractness of scientific truth can be overcome and the need for concreteness and integrity satisfied. We detract from science nothing of its positive character, we leave it in full possession of the object of knowledge, but we free that object from an abstract objectivity. We declare that the object is only truly known when the conditions of knowing enter into and become an intimate part of the concept of the object known. Knowledge is not an external relation. There are not pure objects on the one hand and indifferent subjects on the other. Mind in abstraction from nature, nature in abstraction from mind, are unsubstantial shadows.

It is not in mathematics and physics alone that science has been led to adopt a principle which is essentially that of philosophical idealism. Equally significant is the development of biology and of the still more recent science of psychology. Until the middle of last century biology was only a group of more or less scientific classifications of the known forms of vegetable and animal life, with no claim to the precision of the recognized sciences of mathematics, mechanics, and, to a certain extent also, chemistry. The significant facts in regard to the rise and development of the science of biology are: the perfect confidence with which in the beginning of the science a mechanistic interpretation was attempted, not only of vital phenomena in their actual manifestation, but also of their historical continuity in the evolution of species; the initial success of the method; and its ultimate breakdown and failure. I do not claim for the newer theory of creative evolution that it has as yet displaced altogether the older theory of natural

selection, and, indeed, biologists are as far from unanimity in accepting the interpretation of life as an original impulse rather than an acquired endowment, as philosophers are still far from accepting the theory that intellect is itself a product of evolution, but at least it seems to me that the whole of the early attempts to interpret function as a casual emergence from accidental structure and to explain life as an acquired function of an inert matter are now wholly discredited. In claiming that the theory of creative evolution is an idealistic principle applied to positive science I have regard simply to the fact that it rejects, as essentially irrational and literally inconceivable, the presupposition that it is possible to reconstruct, on the mechanistic analogy, the continuity of enduring life and progressive evolution, by analysing the structure of the organic forms in which life is immobilized. In physiology, and in biology generally, the problem of science is the problem of the integration of function and not that of the dissociation of structure. Most noticeably is this the case in neurology, where the clue to the whole secret of nervous mechanism is seen to lie in the possibility of discovering and understanding the nature and working of the integrating function of the brain.

The necessity which compels this inversion of the ordinary analytic method in the science of life, or indeed of anything the essential nature of which is conceived dynamically as activity, was pointed out, also for the first time in the history of philosophy, with absolute clearness by Leibniz. He proved from the concept of individual substance or active subject that piecemeal, ad hoc, purely contingent and momentary creation is impossible, inasmuch as the spatial manifestation at any moment is the expression of a nature whose continuity lies behind it in the past, a continuity which consists not in succession, but in development. This was the ground of the argument that the universe of the monads could only come into existence altogether by an act of creation, or perish altogether by an act of annihilation.

Psychology, the most recent claimant to a place in the circle of the natural sciences, also illustrates this idealistic principle

in one very definite particular, namely, in the significant failure of the alternatives of parallelism and interaction to explain the relation of mind and body. One effect of Descartes's distinction of two substances, each possessing an exclusive attribute, was that the problem of mind and body had to be formulated in terms of their relation. The first attempts of philosophy were directed to the discovery of a metaphysical solution, but in the nineteenth century, when the scientific problems of life and evolution became the central intellectual interest, the need to bring the phenomena of mind or consciousness within the scheme of a scientific monism became paramount. The older metaphysical theories were rediscovered and introduced, first as working hypotheses, and then as themselves scientifically verifiable and indicative of the nature of the phenomena. The difficulty seemed at last to be overcome in the epiphenomenal theory of mind. The success of this theory proved, however, to be brief. It was rendered meaningless by the scientific discoveries of the new psychology and the clear evidence which was forthcoming that conscious mental processes are continuous with, and the expression of, unconscious mental process. It became necessary even in the interest of science to form some concept of the agency of mind. For the whole point of the epiphenomenal theory had been to deny any efficiency to mind, to emphasize its inefficiency, and to reduce its phenomenology to a simple aspect of material agency. The new idealism offers a rational concept of the mind-body relation, and one which is in perfect accord with the new concepts of physical science. It declares mind and body to be in a relation of solidarity.

Just as in the scientific concept of the four-dimensional spacetime continuum, as Minkowski and Einstein present it, space and time are reduced to shadows, and only a kind of union of the two is real, so with the mind-body relation, only a union of the two is real, and each term taken independently is an abstraction possessing no more reality than a shadow. The thinking, acting, individual is actual; mind and body are its coefficients, dissociated by reflective thought and then reified. For the idealist, thinking and acting are solidary, that is, each

depends for its meaning on its relation to the other, and both exist only in the relation. The idealist in philosophy and the relativist in science have no use for substance in the meaning of independent inert stuff, material or spiritual.

The idealistic interpretation in science does not mean. therefore, the undermining of the objectivity of physical reality, and it certainly does not mean that we are to invert the epiphenomenal theory and make the physical universe an epiphenomenon of the mind. Moreover, idealistic interpretation is not a principle imposed from without, serving as a reminder of the limitations of knowledge and of its conditions; it is, on the contrary, the insight which science itself has attained into the truth of its own knowledge and into the nature of the reality of its own subject-matter. It is the adoption of a new mode of representing the universe in thought. The key-note in the application of the principle is the insistence that nature, dissociated from mind, and therefore from the condition of knowing, and presented to mind as a pure objectivity, is an abstraction from reality and not the reality which is the counterpart of knowledge or truth. The concrete reality is the universal thinking which is at once subject knowing and object known. It is pure act. It is what philosophers name Mind, or Spirit, or God. The conditions of knowing and the thing known are coefficients in this universal reality, and also they are co-variants. Nature, or mind, in abstraction has only a reflected or shadow reality.

When we turn from science to philosophy we see that pure philosophical speculation (that is, the reflexion on experience which is free from any bias due to practical interest) converges on the same standpoint. The principle of idealism was formulated at the very beginning of modern philosophy when Descartes, following the principle of universal doubt and adopting the method of clear and distinct ideas, discovered the initial certainty in the existence affirmed in thinking. Modern idealism is a return to that essential and fundamental starting-point, cogito ergo sum, but the development of modern philosophy since Descartes has enabled us to avoid the impasse into which

Descartes himself was led by his interpretation of the principle as the revelation of a thinking substance. The thinking which affirms existence is not a substance passive to external influence, it is pure act. For modern idealism reality is change, becoming, creation. Activity is original, and every static form in which activity is immobilized is derived. Correspondingly, for idealism consciousness is not an endowment, or an acquirement, or an emergence, but the nature of the original activity itself, which is conscious de jure. The "I think," which is pure act, is the "I think" which is consciousness. Modern idealism, therefore, is primarily a metaphysics of reality, and not, as the old idealism was, primarily a theory of knowledge. That is to say, the existence which idealism affirms is given in the pure act of thinking, and is not something thought as existing independently and somehow conditioning the act. No stuff supports nature rendering it substantially independent of mind. Mind is not a quality, nor is it an emergent mode, of the activity of a primordial substance, a content of space-time, or space-time itself. The existence which thinking affirms is immediate. is self-sufficient, and does not compel us to infer a soul thinking. Modern idealism therefore does not offer an alternative theory of knowledge to that of modern realism, but takes a different philosophical standpoint. The earlier idealisms—those Berkeley or of Fichte, for example-reduced objectivity to subjectivity, the object known to a state of the subject knowing, and opposed to them was a realism which affirmed the independence of the object in its existence, and which declared knowledge to depend on an external relation and the internal acquirement of a power of discernment by the contemplating mind. For modern idealism the object known and the conditions of knowing are coefficients and co-variant. The thing thought, the object known, the body of scientific truths, all these are recognized by idealism as positive in their value, but it is denied that they are independently real. Tey depend on the act and are its conditionate, not its condition.

The general theory of idealism in contemporary philosophy is, then, that reality affirms itself as original activity. The

task of philosophy is to give expression to all that is implicit in this concept. In doing so it reforms to its basis the whole mode of representing the universe in thought. It has, however. to meet at the outset a formidable obstacle in regard to the acceptance of the concept itself. Is "activity" substantive? Does "pure act" convey an intelligible meaning? In ordinary common-sense usage activity is always an adjective. It seems to posit substance. It is a strictly dependent idea which describes the attribute or quality of some thing or of some subject. In ordinary thinking universals are abstract ideas which cannot exist apart from the concrete particular instances. To speak of reality is to speak of things, and not of their qualities, or attributes, or activities; and if there are things, they may be inert or active. Idealism reverses this mode of thinking. For idealism, thinking, the pure act, is original and the thing thought is derived. For proof of this it appeals, not to dialectical argument, but to experience and matter of fact. Everything which the mind can present to itself as permanent and unchanging is an aspect or view of what is changing. This is certainly true in regard to all the concepts of physics. The atom is not a bit of stuff, but a stable equilibrium of forces. And it is certainly true in regard to the concepts of biology and psychology. So in philosophy "being" and "nothing," independently of their opposition in "becoming," offer no foothold for thought. The fixed, the abiding, is a view or shape or aspect of the changing, and relative to the observer's standpoint. It is impossible to conceive the derivation of activity—whether it have the form of consciousness, or of life, or even of pure mechanical movement-from originally inert elements; but if we conceive activity to be original, it is possible to derive the permanent, the immobile, the inert. They are mass effects, statistical in their nature. Physics has come to recognize that all its concepts are objects of this kind.

The acceptance of the idealist metaphysics of reality involves three principles which completely revolutionize the ordinary notions. These are the principle of continuity, the principle of individuality, and the principle of community. It is in this revolution in our ordinary notions that we see the convergence of experimental science and of speculative philosophy in a common standpoint. I will explain briefly what I mean by each.

The principle of continuity refers primarily, at least so far as physical science is concerned, to the concepts of space and It is obvious to ordinary reflexion that the perspectives of different percipients must be infinitely diverse, and yet they seem to be all reconcilable in, and to derive their meaning from, the concepts of a uniform extension and a uniform succession, providing the universal and necessary framework of nature. Philosophical theories have oscillated between two views of the nature and origin of the concepts of a space and time one and universal. According to some theories space and time are a direct cognition of present reality. Strictly speaking we do not perceive them, because, being pure emptiness, they offer no datum to sense-apprehension, but their independent reality as the locus of experience is according to these theories cognized with the immediacy of perception. According to other theories, space and time are abstract ideas, derived from the experience of objects and events, of which they are the abstract universal characters. In physics, however, whatever be the philosophical theory of their origin, space and time are concepts, ideally known, and the material for the intellectual constructions of mathematics. And yet, there is an inherent self-contradiction in these concepts which has exercised philosophers of every school since the days of Zeno the Eleatic. For space and time are not only the principle of continuity, they not only provide the framework which enables us to conceive everything as contained or comprehended within one universe, but equally they are the principle of discontinuity, of discreteness or division. There is no limit to the divisibility of space or of time. Their infinite points are absolutely separate. To give unity to space we have to appeal to time, to give unity to time we have to appeal to space, and between space and time considered objectively there is no unity. The self-contradiction is not, as some claim, removed, but emphasized in the modern mathematical

definition of infinity, according to which the infinite divisibility of space and time is attributed to the compactness of the points and instants, the definition of infinity being that no two points are next one another, but between any two there is always another. Space and time are thus conceived as a discreteness which is absolute. Such a principle is as destructive of the reality of activity as it was proved in ancient times to be destructive of the reality of movement. Modern idealism reverses the whole standpoint. For it space and time are the principle of multiplicity, not the principle of unity or continuity. The reality of activity depends on absolute continuity, and this it finds not in succession, but in duration: for duration means interpenetration, which is the contrary of spatial juxtaposition; and the actual or present existence of the past, which is the contrary of temporal succession. Activity is a tension which holds together past and future in the present action. It is not the activity but the reflected action which has extension and succession.

The idealist metaphysics of reality as an original activity or pure act implies an even more radical reformation of the principle of individuality. Individuality, in its universal meaning, is essential to the concept of activity. It is essential because activity involves both unity and multiplicity as factors. It is multiplicity in unity and unity in multiplicity. It implies, therefore, antithetical factors. There is centralization and there is dispersion. It is at once tension and extension; intuition and expression; mind and body. It is possible, no doubt, to represent activity abstractly as an undirected and uncontrolled agitation or movement, as a general flux, but to represent it as real we must conceive it as concrete, and to conceive concrete activity is to conceive individualized activity. But individualized activity is finite. How are we to reconcile our concept with the finiteness of the individual? Idealists are divided on this subject. There are two philosophical theories of the nature of finite individuality. One is that the finite individual is an adjective of the Absolute, that only the universal reality is individual and concrete, and that finite individuals

represent degrees of reality. The other is that the reality of the individual is substantival, and its finiteness is the singularity of its point of view; that while there are infinite points of view, each is the centre of the universe and unbounded by other points of view. We need not decide between the two theories, for the concept of original activity is common to both, and this concept involves a reformation of the principle of individuality. The world of nature, the physical universe, is unrepresentable in its own right as objective existence independent of subjects of experience. The universe is not pure object, it is object-ofexperience, and the mind is not pure subject, it is subject-ofexperience, and the concrete individual is subject-object in an intimate, internal, indissoluble, mutually constitutive, relation. The common-sense notion of individuality is the reverse of this. It is expressed very clearly in the old creation myth. "And the Lord God planted a garden eastward in Eden; and there he put the man whom he had formed." The environment in which the individual's activity is exercised is conceived to be independent of that activity. The individual is a sojourner in an alien world. He may modify its order and outward disposition, but the world is indifferent to him. The criticism of this view is enough to reveal at once that it depends on an interpretation of experience which is unsupported by anything in experience. This was made clear by the old idealism. Modern idealism rejects it because it is able to offer a simpler and more natural interpretation. All existence is individual, and each individual's universe is as unbounded as is his field of vision. No more in the case of the intelligible world than in that of the visual world is it possible to distinguish a separate reality, a reality independent of any individual. Everyone in saying I think affirms I am, and in affirming his existence affirms the universe of which he is the centre. No momentary juxtaposition of spatial constituents will yield the individual, because individuality depends on a continuity with an integral past, an individualized past expressing itself in a living present activity. The contention of idealism is that only the individual is concrete, and the ultimate reality of the physical world is not an abstraction,

but is constituted of individuals. Whether individuals are conceived as "degrees of reality," or as monads, that is, things-in-themselves, they, and not a homogeneous matter, or ether, or space-time, are the real.

If, then, there is no concrete reality unconditioned by its relation to an individual mind, and no common object open to inspection by every mind, what is the principle of intercourse between individuals, and how from this intercourse does there arise the subject-matter of physical science? Modern idealism answers this by a reform of the principle of community. Intercourse between individuals depends on their responsiveness, and responsiveness depends on their activity, and the degree and the nature of the response depends on the direction, the range, and the rhythm of the activity. The identity which underlies community is not in the world external to the individual, but in the constitution of the individual himself. In this we touch the deepest significance of the modern idealist doctrine. Leibniz realized that the nature of the activity of the monads made interaction between them in the ordinary mechanistic meaning of physical science inconceivable, and he attributed their harmony to the wisdom and power of God their creator. Modern idealism follows Leibniz in recognizing the fact that intercourse between mind and mind is not a direct exchange of ideas. It can only be explained by a philosophy of language. For commonsense, on the other hand, language is a purely mechanical process which is capable of scientific explanation. It is generally regarded as an invention. Its employment is considered to be due to an agreed convention between individuals by which adherent signs are attached to objects of common experience. Many philosophers accept this view and pursue the ideal of a perfect language in which every sign shall correspond to one recognizable and unchanging meaning, identical for every individual mind. Idealism rejects this concept of the nature of language as implying a false metaphysical theory. It replaces an irrational science of language with a consistent philosophy. philosophical theory is that language in every form of it is essentially artistic expression. Expression is a relative term

implying as its correlate the internal intuition of which it is the outward manifestation. The significance of the doctrine is that language is not a passive acquirement by the individual, but an active expression of the individual in precisely the same sense in which the work of art is the individual expression of the individual artist. In language there is no interchange of ideas between minds, as when the content of one vessel is poured into another, and also the expression-word, sign, or symbol—used by one individual and understood by another does not derive its meaning from an external object, but from an internal activity. There is intercourse whenever and in so far as the self-expression of one individual evokes responsive self-expression in another. Language is therefore a much wider term than intercourse. There is language wherever there is internal activity outwardly manifesting itself from an individual centre. There is intercourse only when individuals are attuned to the pitch at which expression can be responsive.

The idealist scheme of intercourse, then, rejects as irrational, and has no need to assume, any form of independent external existence, conceived as cause or condition of our knowledge of a common external world. We start with the concept of concrete mind as pure, self-centred, self-developing act-with the "I think therefore I am." We then seek to make explicit what is implied in the activity of a subject of experience. It is important to put this in the plainest terms, and I can do so best if I take the standpoint of ordinary everyday experience and, instead of reasoning philosophically about theoretical mind or spirit, consider scientifically the actual human individual, our self, our particular mind-body organized for action. It is true we observe this object externally, but we also each know it from within in living experience. When we study the development of its activity as living mind we see that its first and primary activity is æsthetic and not logical. That is to say, it must form the sensuous imagery in which to embody its percepts and concepts. From the scientific standpoint the object which each of us calls self is an external object in relation to other external objects, and fitted with sense-organs to enable

it to respond from within to stimulation from without, but in order that we may conceive these sense-organs in a position to function we must presuppose an internal active production of sensory images. To produce these is the æsthetic function. It implies two factors, an intuitive and an expressive factor. Internal intuitions find external expression. This expression is the sense-imagery. To see how necessary and how elementary this stage in the development of our mental activity is we have only to try to suppress in thought all æsthetic images. The attempt is enough to show us that were we to succeed, thinking itself would be impossible, for it would have no point of attachment. These images are not presented to us by our sense-organs. Sense-organs enable us to have sensations, but sensations have no meaning for the mind which cannot express intuitions in æsthetic imagery. The æsthetic function therefore gives the individual mind its world, a subjective world at first, but a world which the logical function will objectify. This double activity, æsthetic and logical, sense and understanding, is self-expression. It is self-contained. Its products, images and concepts, whatever theory of their import we may hold, are formed internally and not imposed from without. But the human individual is organized for action, its theoretical activity in conscious awareness is clearly purposive. The individual life is essentially a continuity of action; the action requires direction, and the pure theoretical activity of the mind is subservient to the action which the body needs in order to maintain the organism in being. Thus from the purely scientific standpoint which regards the self as an interacting object externally related to other objects and, like them, externally observed, the idealist principle must be invoked, even to give a scientific description of the object's activity. If images and concepts fail of themselves to satisfy, if they are condemned as subjective, and if science demand an objectivity which shall be free from all subjectivity, there is no way of satisfying the demand. Images and concepts are our whole patrimony.

Idealism, then, rests on the indisputable fact that no individual mind does or can express its knowledge of the reality

common to all minds, save in the images and concepts which are the product of its own activity, and which are its own inalienable possession. Yet every individual mind conceives the universe to be independent of its individual activity and common to all minds. If with idealism we hold that the reality is pure act, can we validate the belief in a common universe and interpret it in a way which will offer a basis for physical science? There are two concepts which in the history of philosophy have claimed to provide this basis—the concept of substance and the concept of cause. Both are the product of the self-contained activity of the mind reflecting on its experience, but both give rise to an illusion or mirage. The concept of substance was the first to be criticized, and has long been discredited. The concept of cause was first directly challenged by Hume, and philosophy since Hume has been more or less occupied with attempts to meet the challenge. Each concept has been put forward ostensibly in the interest of physical science in response to its supposed need of an absolute basis. Science to-day has discovered that it has no need of either. Both are postulates of a transcendent reality, and modern idealism rejects transcendence in every form, and finds that in this it is in agreement with modern science. Idealism, like science, directs attention to actual fact.

The fact which to me seems the departure-point of all theorizing is that the reals which constitute the universe are monads. By this I mean that everything which I am able to endow with an in-itself nature must like myself be a monad, its nature must posit for it its existence and constitute it a subject of experience and centre of activity in its own universe. Such must be the in-itself nature of every monad. If, then there is no external bond of continuity between monads in a common space, time, or matter, what is physical reality, what is the common reality which science requires for its subject-matter? If we accept the principle of relativity there is only one kind of reality which a common object of experience can be. It can be no other than a correspondence, or an order of correspondences, between the individual activities. As it is impossible for two

individuals to compare together their images or their concepts, because there is no way of interchanging them, no basis of identity, so it is impossible for two observers to use an unvarying standard in measuring what for them is an identical event. if there is intercourse, if the action of one monad in giving expression to its internal nature calls forth the activity of another to give corresponding expression, then each will find in its own experience the interpretation of all experience. Thus there will arise for the monads a common universe. It will not be given from without-neither imposed by transcendent power, nor revealed to passive contemplation—and it will not be a construction of interpreted sense-data individually experienced, it will consist of correspondences. In such a common universe it will be possible to refer to events which will be the same for different observers, notwithstanding that there will be nothing whatever identical in the experiences of the observers for whom they occur.

Thus from the philosophical side we converge on the same standpoint as that of the generalized principle of relativity. Philosophy can dispense with a hypostasized matter and form, physical science can dispense with a hypothetical space, time and matter, and both gain thereby in directness and simplicity. The reality of the universe is pure act, and its static objectivity is an aspect or appearance. Physical science gets its material from the co-ordination of the universe by observers, each of whom must take his coefficients from the frame of reference which for him is at rest.

My conclusion therefore is that in the modern development of science, which, starting with a dualism of matter and movement, has come finally to present matter as a materialization of energy, we have not a mere analogy with a principle of philosophy, but a convergence of science and philosophy on an identical standpoint. Modern science has replaced the old static atomic theory with the dynamic concept of the electron and the theory of radio-activity. It has dispensed with space and time and immobile ether as the independent framework of the universe, and it has accepted the principle of subjective activity, that is,

the direct co-ordination of the universe by subjects of experience, and the relativity of dimensions to the frame of reference. Modern philosophy, in like manner, starting with a dualism of mind and nature, soul and body, thought and extension, and striving to rationalize this dualism first in a theory of knowledge and then in a metaphysic of experience, has reached a new standpoint in the concept of universal activity, original and concrete. From original activity philosophy can derive the appearance of the universe by interpreting its definite forms, and the aspect they assume to observers, as the expressions of the activity, in precisely the same way in which science generates the matter of the universe from its energy. Philosophy and science are thus able to approach their respective tasks from a common ground, for each recognizes that its criterion of truth and reality is not without but within the subject of experience. For my own part, I have sought to give expression to this principle in a theory of monads, for it was by the concept of the monad that Leibniz originally sought to reform the Democritean concept of the atom, and the monad seems to me to be in all its essentials identical with the principle of the observer attached to his frame of reference, which is the basis of the theory of relativity.

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THE FUNCTION OF METAPHYSICS IN SCIENTIFIC METHOD

By R. B. HALDANE

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BIOGRAPHICAL

At 16 I went to Edinburgh University in 1873 and studied under the late Professor Fraser. I obtained the Bruce of Grangehill Medal in Metaphysics, and the Ferguson Scholarship of the four Scottish Universities three years later. I went also to Göttingen and studied under Lotze. I was much influenced by Kant and especially by Hegel; by his method of approach rather than by his system, or by his detailed theory of the absolute.

On the whole, I think that Hegel has come nearer to the ultimately true view than any one since the ancient Greeks.

THE FUNCTION OF METAPHYSICS IN SCIENTIFIC METHOD

I THINK that I can best meet the purpose of the Editor of this volume if I confine myself to the statement of a single metaphysical principle. A more detailed treatment of the principle I have attempted in two volumes, published within the last two years, and to these volumes I refer for such elucidation in detail as is asked for. They are mentioned later on. Concise statement of broad principle is the more desirable because of the tendency of the times in philosophy. Discussion to-day is apt to lose precision by concentration on details. We fail too often, not only to see the wood for the trees, but the trees themselves, because of undue attention to the bark, and even the bark itself because of our concern over its specks. In this we contrast, not to our advantage, with some of the writers of the past on philosophy.

The primary purpose of such inquiry is to ascertain the ultimate character of reality. This has been its problem from the beginning. An answer appears to be impossible if the question is only whether there is mere agreement of some conception with what the balance, the measuring-rod and the clock reveal. Philosophy appears to be akin to art and religion in this at least, that its standards of truth must extend to more aspects of reality than such only as are concerned with quantitative measurement. The quality and range of the conceptions employed are here of much importance. They must never be looked upon as final or exhaustive of the facts if they present these exclusively in some only of the various ways in which they disclose themselves. As observation of nature progresses,

philosophy has more and more of which to take account, and its outlook must be a steadily enlarging one. The standard of truth from the widest point of view must deal (for example) with aspects which are not confined to merely quantitative forms, and must have reference to factors in reality which are not measurable, such as value in quality. Moreover, just as art and religion, which extend to such values, can never be final, so philosophy never can be final. Its success depends on range and adequacy and on full account taken of values, and these last have to be estimated in modes of judgment, which may be of differing orders, and may also be dependent for their proper expression on the time-spirit.

Much obscurity has arisen from a too contracted view of the meaning of knowledge itself. It is easy to think of it as if it were no more than an object in our experience, and to form, metaphorically, images of the mind as a thing, looking out on an independent object world through the windows of the senses. Such images represent knowledge as a property, an activity which establishes an external relation of an independent object to the mind. But such metaphors break down when referred to actual experience. In no case does it appear that the character of the object is independent of the character and activity of knowledge. If we take as an illustration even the definite standpoint of physical science, shape and measurement present themselves as facts which vary with the activity and position of the observer, or, in another view of relativity, with the way in which, in time-systems which are continuously varying, he partitions the changing events of which he is directly aware, although such shape and measurement are not the less to be taken as being actual facts of nature. This is the teaching of powerful schools of modern physicists. Again, when the biologist studies a living organism, he distorts his object if he insists in treating it merely as a physicist would. His view of the facts which confront him would be moulded naturally by another standpoint which these facts impose on him. looks at them normally as does the ordinary person for whom life is comprehensible only in the language of life, and a living

being is for him reality of a character different from what appears from the point of view of the physicist, who can take account only of a machine, the parts of which have no relations other than those of externality to each other, and the action of which is determined by causes operating exclusively ab extra. In life what we believe ourselves to observe, if our minds are not debauched with unconscious metaphysics, is a set of phenomena belonging to a different order in experience. The whole here controls the parts or organs, not causally, ab extra, but as the end which the parts or organs embody and subserve. The hand and the heart do not exist excepting as organs in a body which is alive. If separated from it, they die and degenerate into inorganic matter. With the time relation it is not different. The life of the human organism pursues a defined course from conception to death in the interests of the species. This course, with the developments which are exhibited through it, is determined by the ends the fulfilment of which is characteristic of mankind. The course of our growth is not in the main fashioned by causation ab extra. It is actually governed by ends the fulfilment of which quasi-purposively determines the character of human life. The organism is not developed by the operation of external causes. It behaves unconsciously in fulfilment of functions in the interests of the whole that are not separable from the existence of its constituent parts, and in the fulfilment of which these parts live. Nor is this phenomenon confined to the higher phases in life. The minute micro-organisms, such as the germs in disease, which reproduce themselves in myriads, do so on a pattern which does not vary. What is observed recurs throughout the whole multitude of individual instances which follow the parent type. To try to explain such a fact through the conception of blind external causation is contrary alike to probability and to common-sense. Here again the facts can be interpreted only through the conception of an end realizing itself throughout change of material in the form of behaviour, and it is this conception which here characterizes both knowledge and what it has before it. Obviously experience

requires knowledge in the fullest sense for the interpretation of its nature.

But from the standpoint of the pure physicist, as such, the facts seem to him more limited, and the reason is that they cannot appear otherwise than as limited. His conceptions are confined to those of external causation, and he is unable to avoid trying to reduce the phenomena of life to interpretation of the same order as that to which the conceptions of external order belong. When we pass to phenomena falling within the order of mind, whether before us as displayed in our external world or in our own souls, we find the principle in another form less abstract indeed, just because nature reveals free mind as one of the most concrete aspects of itself. Here it is not merely unconsciously self-realizing ends that confront us, but conscious choice, free in that it is determined not by causation but by intelligent reasoning. In mind its freedom to choose is implicitly present in every form of its activity. The barest awareness presupposes freedom in activity as the condition of its possibility. To be free in the sense of being capable of intelligent choice is of the very nature of mind.

Now each set of the phenomena of the actual world to which I have been referring can be contemplated in virtue of our liberty to make abstractions from alternative levels. they turn to life, the physicist and the chemist study the living organism as presenting itself in an abstract form at a point of view different from that of the biologist proper. Their methods depend on conceiving all changes in structure and activity as exclusively the outcome of external causation. Of behaviour as such in fulfilment of ends they can take no account. level of knowledge to which they confine themselves is partial only, and ignores more of the full fact than that of the student who accepts the cardinal fact of life as teleological behaviour. Although limited in scope and to that extent inadequate to complete reality the methods of the physicist and the chemist none the less possess certain advantages. They can invoke the aid of the measuring-rod, the balance and the clock, if they confine themselves to relations of order in externality, and to

this aspect, abstract and falling short of the full reality as it may prove to be, they do confine themselves. Thereby they get exact measurements of certain kinds, measurements which are essential at their standpoints, and also indispensable for practical purposes, scientific and everyday. For experience comprehends many aspects, inadequate, each of them taken separately, to the full truth, but in which its subject-matter is displayed in the abstractions made by reflection. Knowledge and reality appear alike to possess degrees or levels, some of which are essential for the full character of the particular object studied, while others are inadequate generalizations under special conceptions from concrete and actual facts of observation. Therein lies their relativity. But all of them appear within the entirety of both knowledge and its object, and have their places and mutual relations in that entirety. The truth is the whole, but the limitations imposed on the human mind by its place in nature, and a consequently hypostatized distinction of subject from object, prevent it from exhibiting that whole fully in what we assume without reflection to be direct apprehension. The use of abstract principles has indeed this advantage, that it makes possible definition of aspects, and so clearness and extension of the range of comprehension by symbolic A great deal would doubtless be gained could we reduce knowledge to a system of differential equations, eliminating the contingency we meet with in our individual experience by the consideration only of what has been notionally reduced to relations of the infinitely near between point-events. But still more would be lost if we took such a method to be capable of presenting exhaustively or adequately the principles which govern the behaviour of the facts. For the method is one which excludes the consideration of anything excepting the relations of order in externality and possibly of causation ab extra. But even our actual experience always carries us beyond such relations. There seems to be there no entity or relation which has any meaning excepting in a variety of types of knowledge. And it needs all these to express the significance apart from which it is not existent for us. To be

meaningless is to be beingless. Being always implies meaning of a certain kind. It is only when metaphorically we represent knowledge, as we are apt to do with our experience, as an instrument or property of a kind of thing having a subordinate place in its own object world that we break away from recognizing this. It seems inevitable that development of reality should ultimately coincide with development of significance in knowledge. This, of course, does not imply that a dream is real excepting in as far as it is real as an hallucination. It is unreal in that it is not found to import the harmony it suggests at first with the rest of our general experience.

This brings us face to face with the problem of the character of knowledge itself. If meaning and reality are inseparable notions, nothing actual can fall outside knowledge in some form. The actual, the not-actual, and the possible, truth and error, have significance for us only within it as the foundation on which they arise. And yet human knowledge, although it leaves nothing definable outside of itself, does never exhaustively define reality. The object of our perception appears to be there independently of our mental activity, and to be an individual and unique fact, an unambiguous object presented in our awareness of it. Now the full nature of that object is more than can be put in general language. It cannot be exhaustively described in language which is, as all language is, general. For words in themselves are ambiguous, in that they fail to define what is unique. There is a particularity entering into uniqueness which knowledge never adequately expresses. We cannot define unique individuality; what we can say of it is mainly negative. And yet actual fact implies it. Such individuality is no property by itself; otherwise we could in some measure at least describe it, and this we can never truly do without transforming its character. None the less, though not existent apart from the activity of reflection, it is a logical phase essential to reality. Individuality appears in the uniqueness of the actual as that for knowledge apart from which thought cannot escape from remaining abstract and inadequate to reality, while this is yet itself no self-subsistent entity. In so far as it can be named

as a concept it points to what is only a limiting conception, not without analogy to what we find in mathematics. When, therefore, we scrutinize the general language in which our experience is expressed, we discover that it is not fully or really descriptive of what takes place in space or time. For events are individual, implying the moment of the particular as involved in their individuality, and the progress of their definition through general notions is one which is never exhaustively completed and is in truth unending. Such definition may guide us to the employment of individual symbols with which we can work, but not to individual facts to which these symbols relate but which they never describe in their fulness. The penetrating power of our reflection has no limit, but it cannot exhaust its object, or make us free to rest in what we reach. The phase or moment of the particular in observation presents itself under the guise of an asymptotic limit towards which we can move indefinitely, but only in general conceptions which cannot reach it as an entity completely definable in their terms.

With one qualification I venture to express agreement with the substance of what is said about uniqueness by Mr. Bradley in the fourth of the Terminal Essays in the new edition of his Logic. In uniqueness, as he points out, the "that" and the "what" fall together. A genuinely and not merely relatively unique fact can never be self-transcendent. The ideal of an ultimate and complete Universe is one which imports uniqueness, which is more than merely such relativity to conditions. Such an ideal Universe must be thought of as determining its own conditions as falling wholly within itself.

Where I am not so certain that I find myself wholly at one with Mr. Bradley is over the significance he sometimes, especially in his earlier books, appears to attach to what is particular as distinguished from what is individual. He seems to claim for feeling as such an independent status. For me the particular, whether as bare feeling or in any other form, can be nothing self-subsistent or actual in itself otherwise than as a merely logically distinguished phase in individuality. It seems to me to be just a limit confronting progressive thought

through concepts, a limit towards which we approach only asymptotically, and which, if taken to import more than this, turns out to be indefinable and to signify nothing that can be actual in itself. Its distinction from the logical moment of the universal which is implied by and enters into all fact is that in experience such as our own, in which the "what" is never exhaustively given in the "that," it is the indication of just the unrealized ideal of the self-completion of knowledge, an ideal everywhere implied in the dynamic striving of our experience, as men and women, but never reached. For myself I do not see how such an ideal of perfect knowledge can be conceived apart from such self-completion and consequent all-inclusion. Such knowledge would be in character individual, and in it the isolation of subject from object would be overcome. Individual in its form it must be, just in that universal and particular stand no longer in antithesis. Such knowledge may legitimately be described as absolute. Unlike our human experience, the whole of what is distinguished in it must fall within itself, so that it is more than merely relational. It is only within it that relativity can lie or be established. For it cannot be other than a system of self-knowledge, individual in its self-presentation and unique in factual character. Its nature is to be knowledge self-mediating and completing Feeling as particularity in connection with a subject itself. that was completely object to itself would be meaningless, and between "that" and "what" there could be no distinction. Such ultimate reality must surely be of the character of knowledge, the name for what cannot be rendered in any terms other than its own, and which has nothing beyond itself. For outside it nothing has meaning and nothing can accordingly be spoken of as existent. Human experience is indeed a type of knowledge, but in its relational and unending character it seems to imply the immanence of knowledge in this higher form as the ultimate reality foundations to it. The conception of such ideal knowledge and of its immanence in our experience seems essential in a complete comprehension of the Universe. For human experience appears

only as a form dominated by relativity, and so in contrast with an ideal knowledge of a higher order. The ideal appears to be one towards which we are guided not in direct awareness, but in knowledge itself, establishing as falling strictly within and not as without it the very conditions to which the relativity of experience is due. Such are some of the reasons which have brought me to the conclusion that it is better to name the foundation of reality, not as experience, but as knowledge in the fullest sense, or else as mind. But the name must not be taken to indicate what we picture as an "entity." The metaphysical conception is of what is foundational to all forms of entity, for these arise only within it. At this point I have felt difficulty in following the line taken by Mr. Bradley and Mr. Bosanquet.

Concepts enter unlimitedly into the constitution of experience though they do not exhaust it. Apart from its setting in thought, the moment of the particular is not significant, and is therefore not actual. It is in this inseparability of universal and particular in both knowledge and its object that the individuality and uniqueness of the actual consists. Take the case of the people assembled in a hall to have the apparently direct experience of hearing a speech. They are persons who physically are mutually exclusive. Their individual sensations depend on their organisms and are their respective private possessions into which no other can enter. And yet only through these very sensations can they see and hear the same speaker, listen to the same speech in the same hall, and perceive a world the same for all of them when they leave the hall. How is this possible? Not merely because of their sensations, but because they put interpretations which are literally identical on private and exclusive sensations. Now the interpretations thus incorporated into reality are thoughts of the character of concepts, and thoughts are not in truth happenings in space or time. Psychologists may metaphorically treat them as such, for special purposes, as physicists do with life by means of abstractions which distort their nature. But their real character is to be universals, creatures of logic, which are either identical or not identical, and even where

there is difference disclose identity in that difference. Such universals are no happenings or events, and they have not any of the limiting character of the particular phase of sensation. The identity in experience of those present at the meeting therefore depends for its actuality on universals of knowledge.

It is on such universals, on the concepts which are of the essence of interpretation, expressed as they may be in mere symbols, that the reality of the world thus depends. My dog has an experience of his own. In certain aspects, such as the sensations of smell, he has a wider range of perception than I have. But the concepts available to him in interpretation are much more limited. He has no experience of wars or of strikes or of beauty or of religion, or of the universe as such. He has before him a world which is as real as my own so far as it goes, but is much more limited in its significance and consequently in its actuality. That is because its reality is relative to knowledge.

But reality implies the moment of the particular as a logical component. The real is individual and the universals of knowledge enter limitlessly into it. Yet these universals only attain actuality through particularity. This, like the universals of knowledge themselves, is only an abstraction got by analysis, and we can interpret it only by abstraction from the actual individual object. Still, it is not the less essential. We seem to start from an object which is always individual and unique and to presuppose such an object in all our reflection.

But if so, the terms Idealism and Realism seem alike unsatisfactory. For they suggest the view of knowledge as a sort of instrument which is only relational and with which we approach reality from outside itself, instead of one according to which we start from our actual experience of the individual object, and find its meaning progressively as lying entirely within knowledge, knowledge which has nothing definable beyond itself, and finds no limit to its over-reaching capacity. The series of its operations is, indeed, in the appearance of our experience, unending and never summed up. Therein lies the finiteness of our knowledge as conditioned by our place in nature. We

start from what seems always to have a phase in its constitution that lies outside itself. And yet such a phase is meaningless excepting as implied in knowledge and as ultimately belonging to it. Not the less it is in experience, and in our actual human knowledge, that reality lies, and the question is what experience signifies. In it we find not only the universal and the particular as inseparable save by abstraction, but not less what we call subject and object inseparable save in the same fashion. They are inter-related poles in such experience. What is present is present only as for mind, and mind distinguishes itself from its object only to find that object and itself as in the end falling within a single entirety, an entirety which implies both at levels within it, but is itself neither mere subject nor mere object, but overlaps them, distinguished as having places within a single whole. That is why knowledge is relative to reality and why reality is also relative to knowledge. The subject conceived as an independent self can no more account for its experience on the principle of subjective idealism than can the object exclude the mind from itself, as is held to be the case in forms of modern realism. But if we take experience as we find it and analyse its characters, we seem to find such aspects as a derivative outcome of our reflection. We are not tied up to an exclusively momentary experience. For experience seems to be dynamic in its self-expansion and to have levels or degrees, and these are so related that they point to the ideal of a concrete actuality greater than what we take our limited experience to be. Such a concrete actuality lies beyond but not outside our experience. It is apparently the foundation and culmination of that experience, which we interpret by making progressive resolution into the universals of reflection, universals through which yet other levels in knowledge dependent on standpoint are detached and isolated in that reflection. so, for example, that we resolve the activity of the life of the organism into the activities of molecules which from a purely chemical standpoint are taken to compose it. We have thereby made an abstraction by which we find ourselves no longer with the apparent experience from which we started, that of an

immanent and controlling whole in the form of an end realizing itself, but of what is real only at a different level in reflective abstraction, an aggregate of particles related merely externally and not as behaving in the fashion of the organs of life. When we carry such abstraction still further, it will bring us to a conceptual world which in its purity from what is irrelevant to its level must be one of point-events indefinitely near to each other, and related in a fashion that can only be expressed in the terms of an infinitesimal calculus. Thus space and time themselves have lost the form of actuality which appears theirs at the more concrete standpoint of the chemist. Similarly, starting from what in our experience we pronounce to be mind, we can so strip it in thought as to exhibit it as if all we had before us were an intelligent living organism, an apparently external phenomenon that knows and is conscious. Thereby we come by an easy abstraction to the standpoint of physiological psychology. But the full reality from which we set out has been left behind. We are now in the domain of life, but not of the free self-determination which is characteristic of intelligence. Even, indeed, when we have present to our ordinary consciousness the full content of our experience in the form of the free intelligence which we accept as of the essence of what we directly perceive in our souls, we recognize restrictions which characterize it. Such free intelligence expresses itself as an organism which as it lives and knows is yet an organism forming part of nature. In so far as it is so at this level or degree in experience it is conditioned externally. Subject and object are naturally divorced. They may none the less point for their own explanation to an ideal which appears with a compelling sense of actuality, realized, for instance, in the experience of the artist of genius. Even then it is only momentarily that this level is touched. Yet at such moments we have the sense that the foundation of finite knowledge lies in what is beyond and yet immanent in it, a standpoint at which reality assumes a deeper and wider meaning than that which we form in daily practice and to which our place in nature binds us. We recognize ourselves at such moments of insight as being more than we have ordinarily taken ourselves to be, and the immanent infinite quality of experience discloses itself as the final foundation of our actual world. That, I may observe in passing, was the view of reality held by Goethe as being what art and science alike pointed to.

Such a conception of the self starts from the experience that is actual for us, and in the processes of knowledge that actual is resolved from a wider standpoint into further universals. These, while more abstract than the subject-matter at the point of departure, gain in distinctness and in capacity for increase in range through their expression in symbolic form. We can resolve not only downwards but upwards, towards standpoints which are not the less legitimate because they cannot be expressed with consistency in our imagery. We sometimes find them in concrete form in emotion, emotion which is shot through by the reason which makes it what it is. Only man and not the mere animal is capable of art and of religion, and of much else that has meaning only for reason itself. Such reason is abstract on its intellectual side just because it belongs to a level which is not that of everyday practice, but it is no more unreal than the reason which in science abstracts downwards. It is its symbols that are different.

If this be true, we ought to revise our ideas about the dilemma between idealism and realism. For the actual must always be what it is in some individual form which embraces the general as well as the particular, thought as well as feeling. How we resolve it in reflection depends on the categories we employ, and these are present in it, and, according to the standpoints from which they operate, determine reality and give to it a variety of forms and degrees. Such categories cannot exhaust what is actual, inasmuch as they are confined to the phase of the universal in reality. But none the less they are implied in reality and enable it to be treated as exhibiting degrees and orders. The standpoint from which we approach the problem of metaphysics has thus been shifted, and its main historical controversy seems to have been in truth a subordinate one, arising out of a mistaken effort to resolve the real either into

universals or into particulars, to neither of which can be attributed the status of a truly self-contained entity. The actual facts require both moments for their explanation, but only as aspects or logical phases implied in their individual uniqueness.

Such a view does not alter the requirements of scientific method. The standards which have regulated these since the time of Bacon remain. But in observation and experiment and in inference based on them there is something demanded which is emphasized afresh. It is that in employing the true methods we are to be careful that we make use only of the categories found by full experience to be adequate to the subjectmatter and the purpose in hand. It is easy to go wrong here, and to fall into error by assuming that the particular standpoint of approach is in itself sufficient if it gives us knowledge belonging to orders other than those of which we are in search. The theologian is apt to do this when he tries to render what he reaches by way of faith in other aspects of experience into scientific propositions. The man of science is equally apt to go wrong if he leaves out of account the possibility that his abstract conceptions may not enable account to be taken of standpoints from which the actual presents itself in a different order of knowledge.

I do not think that the principle to which I am referring is any new one. I find it stated in somewhat different language not only in Aristotle and in Hegel, as well as in other writers, but also elsewhere at various periods in the course of philosophical development. If it is a well-founded principle, it introduces harmony between various kinds of knowledge. It also throws much light on the foundations of ethics, of art, and of religion, and provides new tests for the consistency of their points of view.

It may be convenient to endeavour now to sum up in propositions the conclusions suggested about the character of the real. That character is to be sought neither, as the Rationalists did, exclusively in logical qualities, nor, as the Empiricists did, exclusively in supposed bare feeling. Kant rejected both of these extremes, but he never sufficiently extended the meaning of knowledge to be able to harmonize them in a larger view of the entirety which cannot itself be broken up into existents conceived as independent in it. The necessary restatement can only be made in terms which are difficult inasmuch as they cannot be based on images. For these can never be exhaustively rendered in human interpretation. Still, it is apparently practicable to exclude much that is misleading, negatively at all events.

In the first place the objects which we know, whatever they may be, can never be interpreted exhaustively if they are taken by abstraction as existing independently and in separation from our knowledge of them. Existence is a mere empty blank when we try to dissociate it from the significance which makes it what it is for us. Now, that significance can never be fully expressed in words, which are concerned only with universals notwithstanding that the residuary aspect, the recognition of which is forced upon our minds, cannot be a separate entity. In the second place, the object and its reality are thus individual facts, and our knowledge of them must in ultimate analysis be individual in its character. Even the symbols of mathematics are obviously of an individual nature, although used only as counters for general conceptions. In the third place knowledge is no instrument or property. It is only relatively and by abstraction that we so treat it. If meaning and existence cannot fall asunder, knowledge must be the foundational fact. truth or falseness and the apparent dependence of its form on a particularly conditioned subject are all the outcome of distinctions made within it, for it is within as well as by knowledge that subject and object are distinguished, and become apparently independent phases of the actual. In the fourth place it is accordingly to a search for the implications of our knowledge as we find it that we must turn at the outset of any endeavour to discover its character. Its only explanation lies within itself, and is in the nature of self-explanation by the dynamic and dialectical activity of reflection. Only by abstraction do we present it to ourselves as an independent

subjective phenomenon apart from and confronting ourselves, and it cannot be adequately approached either from the subjective or the objective side alone. For these sides imply each other in the entirety of experience. That experience is just our object world referred to a self taken under the aspect of an object in nature. In the fifth place behind experience there is no use in trying to penetrate. It is always our point of departure. we can resolve it, indefinitely, though never exhaustively, into universals, and so compare it with itself at different degrees and with the experiences of others. It is thus that we affirm of it truth or error, and penetrate towards its basis. In the sixth place our experience always discloses as immanent in it, and as its implied foundation, such an ideal system wider in quality and range than itself, as has already been referred to. it exhibits a variety of levels or degrees which are not reducible to each other, although they appear as abstract and subordinate forms of what is more concrete and therefore nearer to the individually actual. It is its individual character that confronts us as being the character of knowledge and reality alike. These tend to fall together in it, and it is our experience of this fact that is the true starting-point of our abstractions. The antithesis of idealism and realism arises out of the metaphors in which this character is distorted. The false image of knowledge as a sort of instrument or property of something embarrasses us in accepting knowledge in its limitlessness as the foundation of reality, rather than our mere experience as conditioned personalities. Although the universals in which reality is rendered cannot properly be treated as objects perceived, not the less does our knowledge reach over its entire object world, possible as well as actual. Knowledge cannot be explained ab extra; it discloses its own character only in its self-scrutiny.

Human knowledge thus never exhausts reality, and yet there is no barrier against which it is brought up. For the moment of the particular is only a limiting one, a beyond which

¹ See Part II of *The Reign of Relativity* and the Introduction to *The Philosophy of Humanism* for the development of the grounds for these propositions.

is never exhaustively reached. It is our situation as mind expressing itself in nature that seems to bring us up against this limit. Every form of inquiry leads us towards, but not into, complete sight of reality. There is an infinity of possibilities in detail which thought does not exhaust, nor does thought, which always proceeds by limiting its own scope through the employment of special categories and the standpoints they determine, ever exhaust its own possibilities or even its own activities. Still, beyond all our efforts is an ideal which is the key to their very reality, the immanent ideal of knowledge so complete that it too must be all-embracing in its form, and admits neither of being represented in any set of mere generalities nor as having any limit which is not seen to belong to itself. Such knowledge must be, it seems to me, of the character of knowledge as we possess it. But in it universal and particular and subject and object may from a more comprehensive standpoint no longer appear to fall apart, and for such knowledge there may be no factor which it is not aware of embracing. Because such an ideal completion of human knowledge seems to be implied as lying beyond that which is our own, in our experience we can never interpret adequately, even in our everyday practice, unless we take account of the fact that it is only as present to thought that there is meaning in even the simplest entities to which we seek to reduce reality. It is their meaning, and therefore their presence for mind, which gives them their actual existence. All reality actually falls within knowledge and owes its whole significance to it. Knowledge interpreted in this wide sense, and with its ideal completion taken into account, thus discloses itself as not merely the foundation of reality but as indistinguishable from it. But so conceived knowledge cannot be adequately represented as the property of a finite subject existing in independence of its object, or of a substance or thing or of mind regarded as a thing in nature. For things and mind alike, with the distinctions between them, have their significance and interpretation only as falling within it.

The world, then, is actually there, before and within us, just as it seems to be. It is a fallacious procedure to try to regard

it as if somehow it were put there by our minds or were built up by them through an instrument uncritically called knowledge. That there is an object world in which we ourselves have our places as objects is a basic fact of experience. Such experience is ours at a certain standpoint and level which might have been different. But for us it is our necessary point of departure: it is our "that." To seek for the genesis of the knowledge in which it appears is to misconceive the problem. For such a genesis must be itself a fact within a knowledge which is its own entire universe. We may study the fashion in which we as intelligent beings have been developed within the object world of which we form part as our own objects. That is a legitimate study for science, but on the genesis of the knowledge within which the object and its process occur such a study can throw no light. The only method is to follow the fashion in which knowledge presents itself to itself, and to discover what the implications are in what is so presented. Knowledge is no event among events. It is a universe to which events belong and within which they all fall.

We come thus to a view of the objective world and ourselves within it as reality of which we are directly conscious in an experience which includes and is inseparable from feelings and sensations as falling within it. Notwithstanding that these are individual facts they are not the less dependent for being what they are on universals of reflection. Apart from these, they have no meaning and no reality. Yet these universals never exhaust what is present to us. Our world is not constituted exclusively out of intelligible relations. Because we see and feel it, because our emotions are part of it, that world is something that is more than the particular minds for which it is there. These minds are objects of experience in and along with it. They are thus finite. But because they are fashions in which knowledge presents itself through them, they are always more than they take themselves to be. Their foundation is broader than they are, and that is why the penetrative power of thought knows no limit that it does not itself create or which it is incapable of superseding. But it is conditioned by its station in nature,

its point of departure. The brain does not merely know-it lives. It is an objective form in the higher aspect of which, and with a different degree of reality, intelligence expresses itself. Thus it appears as finite, confronted by other objects on which in many aspects it is dependent. It has sensations because it is a living organism, although from another standpoint it is more than this, inasmuch as it gives expression to the subject aspect for and through which such sensations, with the distinctions between them, are present. For knowledge presenting itself more adequately than it does in the form of an intelligent brain, such a distinction as that between sensation and its interpretation may not be there. We cannot ourselves, conditioned as we are, witness the disappearance of the distinction. may approach indefinitely near to it if we make sufficient progress in the determination through reflection, on the one hand, of the real character of what is not at first recognized as being conceptual in experience, on the other, of the origin and real meaning of the line of demarcation between subject and object.

One of the interesting things in recent science is the way in which a tendency towards something not unlike what I have been writing of is showing itself. A resemblance between the scientific and the philosophical outlook seems to me to be apparent in a recent development of mathematical physics.

Whatever may be the outcome of the discussions that are going on there is one thing which must impress those interested in philosophy. Modern physicists appear to be giving what is really a conceptual character to the principle of relativity. Philosophical writers in Germany, such as Cassirer, are pressing this point, and Professor Whitehead in this country seems to be not remote from it. It is obvious that a highly interesting chapter has been commenced. It appears to be recognized that knowledge enters into, shapes, and makes up reality. For this proposition many of the mathematical physicists appear to have become the most recent witnesses.

I return to the point from which I started. If we interpret knowledge, not as a relation between substances, but as, when ideally regarded, the foundational reality, we are delivered

from difficulties which seem otherwise insuperable. The attempt to so interpret knowledge is no new one. It is the effort which objective idealism has been tacitly and at times explicitly making for over two thousand years, aided in the effort by art and by religion. Knowledge must be given a wider significance than psychologists accord to it. It embraces not only what is logically general, but all that gives to feeling meaning for us. Our striving in it may be conditioned in strength by our station in nature, but the nature of knowledge is such that it can be hemmed in by no barrier. In our daily experience it presents itself at levels or in degrees which we can recognize and with a demarcation of subject from object. But these are on the face of them partial aspects and distinctions within a fuller and more complete entirety which is our objective in a sustained effort to know. It is in the ideal of that entirety of knowledge that we find what enables us to look beyond partial aspects that are merely fragmentary, and, having reached the conception of the entirety inductively as implied from the beginning. later on to interpret by means of it deductively from above.

PRINCIPAL PUBLICATIONS

Essays in Philosophical Criticism ("The Relation of Philosophy to Science," Longmans, 1883).
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The Reign of Relativity (Murray, 1921).

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THE PHILOSOPHY OF DEVELOPMENT

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BIOGRAPHICAL

I HAVE been asked to prefix to my contribution to this volume some account of the manner in which the theories set out below formed themselves in my mind. As an undergraduate at Oxford (1883-87) I was greatly interested in questions of social reform, but in probing them I came upon real or apparent difficulties, sociological and philosophical. I rather innocently took Herbert Spencer's evolutionary theories as the last word of science, and though attracted by T. H. Green's social and ethical outlook I could not see in his metaphysics a valid philosophical solution. Nor did his theory of society satisfy all the requirements of liberty as set out by Mill. It occurred to me, however, that Green's "Spiritual Principle" might represent an "empirical" rather than a "metaphysical" truth, that it might be identified with the Comtist conception of Humanity (especially as interpreted by Bridges), and that the development of this principle might represent the true line of evolution. This hypothesis raised in the first place metaphysical questions which occupied me for some years, during which I arrived at a Realistic view of the field of knowledge (which separated me from the Comtists) and at a conception of the Rational which brought me back into unexpected contact with Idealism. This "organic" view of rationality, which (as will appear below) has come to be for me the basis of knowledge, ethics, and even in a sense of Reality, is due mainly, I believe, to Dr. Bosanquet, though it would not be fair to father my interpretations of it upon him. For a long time I kept it in the background, working at mental, moral and social development on a rigidly "positive" method, but as years went on the remarkable changes that took place in the world of science, the break up of materialism and the opening of wider possibilities, seemed to justify a greater freedom in synthesis.

THE PHILOSOPHY OF DEVELOPMENT

I. THE SCOPE OF PHILOSOPHY.

PHILOSOPHY is the attempt at a rational interpretation of Reality as a whole. In the course of its development it has given rise to numerous special sciences, each of which is the attempt at a rational interpretation of Reality in some part or under some aspect. It has been found possible and profitable, to a point, to pursue such attempts without regard to those final questions of validity and meaning which underlie every investigation, and there has arisen in consequence a tendency to reserve such questions for philosophy, and even to restrict philosophy to their investigation, and so make of it a specialism set over against all the other specialisms. tendency, however, cannot be permanently sustained. For on the one hand the special sciences when they probe far enough dig into the fundamental questions, as in the mathematical and physical investigations of our own time. And on the other hand, though there may be some general truths which can be ascertained without the aid of any special science, the concrete meaning of such truths is in their application, and their value is the light they throw upon the concrete whole. Philosophy therefore must aim at a synthesis, and the analysis which has come to be looked upon as its special function is not more than an instrument of reconstruction. It follows that philosophy must abandon the dream of educing final truth from meditation on simple and elementary conceptions, to follow another and a longer road. It must share the incompleteness of the sciences, and may well be contented if in return for the admission of partial and broken knowledge it secures something

of their assured continuity of advance. Philosophy will progress when its professors so far acquire the scientific spirit as to treat their results as hypothetical and provisional, to deal with each special problem on its own merits without for ever having an eye on its bearing on their cherished system as a whole, when in fine they recognize that a system must be built up bit by bit from the ground and not clapped on from above without regard to its mutilating or crushing effects.

Philosophy, then, has a synthesis of the sciences as its goal. Gigantic as this problem may be, it does not exhaust its field. Distinct from, and in some measure contrasted with, science stand dogma, emotion, imagination, and practice. To dogma, if this means assertion without grounds and contemptuous of tests, philosophy is merely hostile, for this is the very definition of the irrational. But with regard to the other three it discriminates. Imagination is as necessary in mathematics as in poetry, and a literary creation though it does not even profess to speak truth may contain truth, and truth which it is difficult to express adequately in any other form. Of any such truth a rational interpretation of reality must take account. Emotion, again, prompts judgments which may be false or true and actions which may be good or bad. Here we are concerned not merely with what is, but with what may be, and what we wish to be. Both the emotional imagination and the practical interest move in the region of values, and the rational treatment of value, and in particular the relation of value to reality, has always been a part of the philosophic problem. Philosophy, then, is a synthesis not merely of the sciences but of every sort of appreciation of Reality that conforms to rational tests.

The first step towards a synthesis is to find a point of view from which the ground may be surveyed, some central conception in which many inquiries meet. To such a conception the philosopher is led by the very notion of a rational test. For reason is an expression of mind, and the analysis of reason, its proofs, tests and valuations, opens out the wider question of the nature of Mind and its position in Reality. Does mind

create reality? Does it create it in the very act of cognition? and is that why we can trust our faculties when we use them aright? Or is the mental a casual and superficial effect or appearance of realities which in their true nature and interconnections are purely physical, an effect but not a cause, an epi-phenomenon? Or is it co-equal with the physical, a name for one of two great causes or classes of cause that in their interaction make the world such as we find it? Questions like these have run through the history of philosophy in the narrower sense of the term. But they will not be solved by abstract analysis alone. In dealing with them we must lay great special sciences under contribution—the science of mind to begin with, and on its right hand and its left the sciences of society and of life. Where science ends the arts begin, and to understand what mind is we must consider what it is known to create and how it works in creation, to what ends and on what methods. Lastly, so far as our experience goes we can bring together all that belongs to life, thought, morals, religion, imagination and art as the world of mind, and all that lies beyond it, either hostile or indifferent, we can distinguish as the world of matter: and this dualism is then seen as the central problem of our thought, the question to which all others lead up or out of which all emerge. Is it a true dualism? Is it apparent or real, relative or fundamental? What is mind, and how does it operate? What are its methods and aims? What is the relation between Mind and minds? What is its origin and history? What is its place or power in reality?

2. THE NATURE OF THE RATIONAL.

Let us begin with methods and aims, for these underlie everything. As against recent criticisms, I would reassert that a Theory of Knowledge lies at the basis of knowledge itself. For the theory of knowledge is merely the attempt at a comprehensive statement of the kind of data and methods upon which knowledge depends. Moreover, it leads us back to the

question of valuations and rational tests which was the starting point of our question about mind. What do we mean by rational tests? What is the Rational, and why do we give it the supreme place? The broad answer to this is that the rational is the articulate whole so far as we can apprehend it, and that is why it is superior to any part. A firm grasp of this principle which is due to the Idealists, and more particularly, I think, to idealists of the British school, is the key to a Realistic philosophy of knowledge and of the nature of mind. Ordinarily, and at the start quite rightly, we think of reason as that which requires proof for assertions, causes for effects, purposes for action, principles for conduct, or, to put it generally, thinks in terms of grounds and consequences. But reason is not satisfied with proximate grounds. The cause must have a cause, the immediate purpose implies a more ultimate end, and here it is that difficulties begin. Unless it can find some ultimate ground, reason is threatened with infinite regression, an endless chain which hangs on nothing. So far as knowledge is concerned, ordinary thought proffers two grounds of assertion or belief as ultimate-first principles of thought and the facts of experience. Truths of these two classes are thought to be known intuitively, i.e. by merely "looking at" the object which they concern. In the one case we look at the object literally with our eyes, in the other some elements are propounded to our mind, and as soon as we have them clearly before us we predicate of them a certain character or between them a certain relation. It might then be supposed that the search for rational grounds would terminate in immediate judgments of these two classes. Such judgments, however, would themselves be without ground unless we take the certitude of our immediate response as itself a sufficient criterion of truth. But this is readily seen to be impossible in the case of judgments of perception, for we see the stick bent in water just as certainly and immediately as the stick straight in the air, and it is not our immediate but our revised judgment which is correct here. Nor are "intellectual" or "instinctive" intuitions immune from error. It

is not difficult to produce an illusion of necessity in the region of ideas, and even axioms of old standing and general recognition have been disputed. The immediate judgment is the deliverance of the mind in response to the stimulus of certain elements or objects. It depends, then, not only on the objects but on the constitution of the responsive mind, and the mind is not infallible. Its response may be determined, for instance, by emotional predisposition, so that the rightness of a certain act appears to us on the mere consideration of it as plain beyond all need of proof. It may be limited by lack of imaginative capacity, so that we dismiss as inconceivable something which is quite intelligible to those of larger or more elastic ideas. Our ancestors found it difficult to conceive man walking at the Antipodes, and on a certain view of gravitation it would in fact involve a contradiction. We find it difficult to understand the meaning of a space which is finite but not bounded, or of a space which is curved. It does not for the moment matter whether these conceptions are just or not. They are conceptions formed by able men, and it is not rational to reject them on inspection because our minds turn away from them as inconceivable. Felt certitude, the immediate deliverance of the mind upon a suggestion made, is not a sufficient and final criterion of truth, and what appear to be the simplest axioms need, like other judgments, examination, criticism and corroboration.

We seem, then, in the end to be always appealing from one judgment to another, and to be nowhere in sight of a fixed point above all question. Thought seems to move in a vicious circle, or to link arguments in chains which, after all, hang loose without support. This would, in fact, be our predicament if immediate judgments were without intrinsic worth. But this is not the case. The alternatives of absolute certainty and absolute nullity are not exhaustive. Our immediate judgments, though not final, have provisional value. They are as they stand apparently true, forcing themselves upon us with a degree of strength and clarity which is entirely their own. Experience shows that such judgments may at times conflict

with one another and therefore require correction. But they may also corroborate one another, and it is by this method that their provisional value is confirmed. The basis of rational belief lies in the interconnection of judgments each independently formed with a force and clarity of its own. Every judgment that enters such a system gives it support and is in turn supported by it. The whole rests upon the parts and in turn maintains them, and it is this organic principle of mutual support through interconnection which is the Reason.

Such a system is capable of growth and of maintaining a recognizable identity through modification. Since our experience and the thought founded on it are partial, it is not in accordance with reason to claim finality for the system established at any given moment. There is always the possibility of amendment in the light of further truth, and the final claim of reason is not that it has attained truth here and now, but that it is the method of growth in understanding. Its superiority to any other claim as of emotion or intuition is that of the whole to the part. It weighs every judgment and every mode of judgment impartially, and gives it the value which the comparison with other judgments allows. It does not therefore set up one "faculty" above others, but maintains the whole of the faculties against the claims of any one by itself.

We are led, then, to view human thought as an organic structure maintaining itself by the mutual support of its parts, growing, and modifying itself as it grows, through the constant assimilation of fresh experience. New data pour in upon us every day of our lives. More rarely there is a new stimulus, a wider or deeper vision. So far as we are rational, we neither reject these new data nor yet allow them to disorganize our minds. We have to correlate them with the old content, and, if we can do no better, to hold some things in suspense until we can attain consistency, and it is this correlation which is the especial work of thought. The speculative reason, then, is the continuous and comprehensive effort towards harmony in experience, or, to be more precise, in the cognitive judgments

which interpret experiences. The practical reason is the same impulse applied to all of our experience that we value—that is, all that excites feeling and therefore stimulates action. Here, again, manifold experiences of every living being directly excite fear, resentment and recoil, or willing and glad acceptance. Experience is either in harmony with feeling, that is, supported by the feeling which it excites, or at odds with it, and this relation directly determines our immediate impulse. But what is in tune with one feeling may be at odds with another. The immediate response, the intuitive judgment, is no final authority. In the eye of reason another man's feelings count as well as mine, and, in fine, the impulse of reason is to a pervading harmony in the entire world of feeling and experience. It is once again an interconnected whole, only in this case the elements must lend one another not merely theoretical but practical support; and the harmonious system thus conceived as an ideal is by no means a system which we find in existence, but one which as rational we seek to achieve. The basic principle is in the one case the consilience of cognitive judgments, in the other the harmony of the world of activity and feeling. With this difference of application, the organic conception of reason applies alike to the sphere of knowledge and of action. In the sphere of conduct it is not the part of reason to furnish abstract principles for the control of impulse. Such principles, being without impulsive force behind them, would control nothing. The problem of the practical reason is to develop the elements of a working consistency, mutual support, or, as I call it, Harmony, within the entire sphere of impulse feeling, and the "force" of the rational is the summed energy of the felt needs acting as an organized whole. Rational aims focus the felt wants of man so far as they are consistent. Reason operates on the primary impulses by purging them of mutual inconsistency and shaping them into contributory elements in a system of life by which in turn they are in their modified form sustained and furthered. Similarly, in the world of knowledge the immediate judgments that arise on the stimulus of experience are corrected by interrelation, and as

so corrected are woven into a system which stands together as a whole, sustaining like an arch the elements of its own fabric. Just as there is no cause outside Reality which explains Reality, so there is no fact outside the organized system of our judgments which certifies the system, and no authority outside the coherent expression of universal human needs which sanctions our morality. Our thought and our conduct do not hang from a peg fixed in something more solid than themselves, but grow in inward coherence and outward reach through the underlying interconnection of their elements.

Such is the organic view of knowledge and conduct which constitutes the great permanent contribution of idealism to philosophy, and is expressed by idealist writers in the doctrine that the truth is the whole, and the proof or explanation of the part to be found in its relation to the whole. This needs only to be completed by the converse proposition that the explanation of the whole is to be sought in the nature of the parts, which it must hold together in order that it may come into or remain in being. The organic view defeats itself if it makes of the whole a primary principle which will at once turn out to be one element among others.

3. THE OBJECTIVE REFERENCE IN THOUGHT.

It is unfortunate that this view lends itself readily to the conception of completed knowledge and perfect conduct as closed circles with no reference beyond themselves. Reality is then apt to become identical with knowledge and the ends of human action with the action itself. These conclusions are contradictory to the claims of knowledge and the springs of conduct. An object is not as such the action which secures it, nor is it good because the action is good. What is good is a world of experience in harmony with feeling. This is the rational expression of our felt needs, i.e. it is the object of those needs so far as they are mutually consilient. Action is good so far as it belongs to such a harmony. True, an act may "belong" not as a mere means but as itself a part of the

harmony, and this, in fact, holds of moral actions. But it holds not of moral action alone, but of every sort of unimpeded activity and, beyond the sphere of activity proper, of emotional, intellectual, æsthetic and even sensational experience in which no conflict is involved. Morality is a constituent of a wider whole, and the judgments by which it is rationally justified are judgments referent to the entirety of life. Nevertheless, these judgments with their width of reference have and can have no standard of comparison, no proof, no authority, but that of mutual consistency and mutual necessitation.

Similarly knowledge is a body of judgments, which of course is part of reality in the sense that the judgments are formed in living minds. But each of these judgments is the assertion of an object which is not the judgment itself, and the whole system of judgments asserts an entire system of objects which as a connected whole is Reality so far as known and understood. Yet of the truth of any judgment in the system we can be assured only by appeal to another judgment within the same system. The system is, we maintained, ideally a closed circle, and yet at every point its reference is beyond itself. This is a real or seeming paradox from which the idealist recoils, and his endeavour is in one way or another to bring Reality within the system. The simplest method was that of Berkeley, who made the existence of the object identical with the perception of it. The more elaborate method was that of Kant and his successors, which made the mind contribute in greater or less degree (as the method was more or less wholeheartedly pushed through) to the constitution of the object. Realism will have nothing to say to any of these methods. The esse of a thing is not its percipi. Nothing exists because it is known, but is known because it exists. Knowledge is a relation between some existent and a subject that knows it. Where no such relation exists there is a subjective act only, and if there is an assertion, a false assertion. The subjective act is an element in consciousness and takes various forms, as of awareness, thought, questioning, assertion,

denial. No quite convenient class name covers all such differences of attitude, but the term "cognitive" seems to have come into use, and if we divest it of the suggestion of knowing which etymologically it implies we may use it as a general description of the act of consciousness so far as it is not conative. This subjective, cognitive act, then, has an object. If it is an assertion it asserts that the object exists, and if the assertion is true, the object does exist. But how is this to be known? Not, if our account of knowledge is true, by anything radically different from the original assertion, but by comparison with assertions of the same kind. We should begin by asking why our first judgment should be doubted or denied. The answer to that will always be that the object asserted has some point or other which brings it into relation with other assertions, and one assertion turns out incompatible with another. So, conversely, the judgment is corroborated by the points in the object which connect it with other objects independently asserted. The principles of such correction and corroboration, the decision as to what is to stand and what to fall, belong partly to logic, partly to the special sciences, and cannot be discussed here. The point is simply that our immediate judgments are about objects, that in corroborating one judgment by another we are substantiating the existence of an objective order, and that this is achieved in as far as we find consistency in the objects asserted and therefore mutual consilience as between the judgments asserting them. If the immediate judgments did not refer to reality, neither would the body of judgments. Conversely, if the immediate judgments do refer to reality, the body which is just those judgments as a coherent whole cannot exclude or negate but must affirm the reality which all assert.

Misconceptions of the objective reference in knowledge are, I believe, traceable in the main to a tacit assumption that the immediate judgment must either be certainly true or altogether worthless. Natural Realism sets out with the former assumption, and confidently maintains that in perception an external object is directly given, and given as external. Faced with

the difficulty of illusion, it leans its weight on the second limb of the proposition. I am to be directly conscious of an external order as external though I may be deceived as to the particular contents of this order. But if this is the case, my immediate or intuitive judgment is, as it stands, in error. Its immediacy does not save a great part of it, and it follows that immediacy of deliverance or response is not, as such, a sufficient ground of certainty and truth. The only knowledge that seems above doubt-this seems to me to be the postulate which haunts Realists and Idealists alike—is the knowledge which actually is the thing which it knows. This was the basis of the Berkeleyan "esse is percipi." Modern Realists saw the fallacy of this principle, but in seeking to get away from it have tended to fall into the opposite fallacy that percipi is esse. Our perception of the reality is the thing itself, or an Appearance of the thing radiating as it were from it like a Lucretian "species." If this is too crude, at any rate the cognitive act must not be regarded as a perception or as a sensory or intellectual apprehension of the thing. It must be a conative direction of the mind upon the thing. The mind must be reduced as nearly as possible to a blank and cognition to a direction of a conative activity towards this or that element of reality. It is not, in fact, possible to carry through this line of thought without early and final shipwreck, but in order to maintain the independence of the object the Realist will strip the mind as bare as possible and translate everything which makes up our normal conception of mind as far as the elasticity of language will extend into physical terms. Since memory is at bottom in the same case with perception, the remembered experience must either be something past which is experienced now, which seems to be a contradiction in terms, or some sort of persistent appearance or emanation which, whatever it be, is not a memory-judgment. The one thing not allowed is the simple fact that I do at this moment make the judgment that I did this or that yesterday.

None of these difficulties arise if we keep to the elementary analysis of cognition which attention to the process readily

reveals. It consists of two elements in relation, a subjective act aware of, asserting, considering, suggesting, an object. If we obliterate either term we get something that is not cognition at all but simply being-all thought of as of the nature of mind if the one term is cut off, all thought of as non-mental if the other term is cut off. If both terms are preserved subjective acts have all something in common, and this community is one constituent of the general conception which we form of mind. To the object no restrictions can be applied except that it must be such as can in some way come into relation with a cognitive act. But there is nothing to show that it must itself be either mental or non-mental, or that one state of consciousness and therefore one subjective act may not be the object of another. Briefly, there is in the nature of knowledge itself no ground for restricting the nature of the known or knowable. What they are must be learnt from the reports of our immediate judgments in so far as their deliverances are reduced to consistency. The question that we ask about the reality of an object is the question of the order to which it belongs. The dazzling zigzag yellow lines upon the page before the eye may be taken as belonging to the page; that is to say, as elements in a certain thing, this paper, the conception of which is built up out of common elements in a number of experiences and is in turn part of the physical order of reality which has run through all our experiences and become for our cognition a complex object of many recognizable characteristics. But if after this momentary and erroneous reference the sufferer is convinced that it is no peculiarity of the paper but a trick of that old enemy the migraine that is in question, the yellow tracings with their involutions become an element in that system of his own mind which again has become known to him as a system by methods exactly comparable with those which have given him his conception of physical reality. Our knowledge of the contents of reality depends on properly selected and assorted references, and of what is proper our only criterion is mutual consistency. Knowledge as it is the correlation of immediate judgments is also the correlation of objects.

The media of this correlation are firstly the sensible continuity of experience, and secondly the community of character, or resemblance, between different objects of experience. These two elements in our experience suggest the inferences and in particular the generalizations by which eventually we reach our conception of Reality as a connected system. Our primitive inferences, however, are no surer than our immediate judgments. We tend, for instance, to act as if the future would resemble the past, whereas as soon as we set this up as a principle, thereby converting the inferential process into a judgment of fact, we recognize that it is a very loose statement and only true on conditions which require to be fully and carefully specified. When we bring these into account we find an underlying principle which can be stated in more than one form but which turns on the conception of a ground and consequent, i.e. of a universal relation which holds wherever the ground exists, irrespectively of position in time and space. This conception is taken to be applicable to reality in general, so that on the one hand our thought is continually engaged in the search for grounds, and on the other we treat any uniform relation as either (a) containing its ground in itself, so that if one term exists the whole exists, or (b) dependent on something else, which is its true ground or a condition therein. The inductive part of our reasoning consists in the discovery by analysis and comparison of what is uniform in different complexes, whereby any suggestion of external conditions can be rebutted. This process can never attain complete theoretical certainty, but the generalizations which it yields are constantly corrected and in their corrected form corroborated by one another, and the body of general conceptions so constituted forms the best understanding that we have of reality, and is subject only to such vague and general questioning as arises legitimately from the consideration of the infinite complexities of being and the limitations of our experience and intelligence. Its final claim is, as we said at the

To put it more positively. Our whole thought fabric is relative not in the old sense that reality is dependent on being known, but in

beginning, not that it is certainly true as it stands, but that it rests on that rational method of interpreting reality which corrects its own errors and yields the greatest insight into the meaning of our experience. A rigid theoretical certainty can be reached only by abstraction (as when assuming certain conditions and only these conditions to be operating we deduce the consequences) or by analysis. In the latter case, which is the foundation of mathematical and in general deductive reasoning, we are able to place certain elements before us physically and mentally and to contemplate the whole which they form. If this operation is correctly performed, so that it is just precisely those elements neither more nor less which constitute the whole, then they are the ground of the whole and any precisely similar elements form a similar whole. In general, if the terms are adequately defined the converse is also true and a precisely similar whole can be resolved into precisely similar elements. A possible slip in the proceeding is that other elements enter into and modify our view of the whole besides those which we specify, or, which is much the same thing, that the elements which we take into account are not perfectly definite and unambiguous. These are difficulties of the same order as those which beset our ordinary inductions. where it is the concomitant which escapes our observation that is a source of error. We may infer that the nature, conditions, and principles of valid generalization are in all cases the same, and we are led to conceive the continuum of Reality as a network of universals in combinations of endless variety.

4. REALITY AS A SYSTEM.

Our logic moves towards an interconnected system of judgments asserting a Reality of interconnected elements. Now though from the bare fact that it can be known nothing can

the sense that it only includes such facets of reality as our faculties can grasp. These facets may be quite correctly appreciated and yet our use of them in the interpretation of reality might be defective for lack of other facets. Awareness of our limitation minimizes, though it cannot wholly remove this form of error.

be inferred as to the nature of the object known, yet our judgments so far as consistent are reasonably taken to be true. We rightly believe, subject to the possibility of correction, that Reality does in fact conform to them. This is no more than to say that we are right in maintaining them, for they are judgments about Reality. This holds of our general as well as our detailed judgments and of their logical implications as well as of their explicit assertions. Now of these generalities some apply to Reality as a whole. For example, we look for grounds of assertion, and if elements of Reality were without grounds we should look in vain and our principles of inference would be false. Conversely, if these principles are sound, then elements of the Real have grounds and these may be found somewhere within reality as a whole, for a whole of Reality with a cause outside itself is a contradiction. Furthermore, though we may find grounds for what is real at any time in temporal antecedents, i.e. causes, if and so far as we take such causes as separate strands of existence stretching back indefinitely in time, we require some ground for their co-existence. We are thus led to think of things apparently separate as in the end directly or indirectly implying one another, and we have to repeat and enlarge this conception till we conceive Reality as a system of elements each of which at once conditions and is conditioned by the remainder. Moreover, it is not merely the existence of each element but its position relatively to others which must be thus determinate. This implies that the elements in their relations constitute a plan or pattern in which each plays its part at its own point. That is why it exists just there, and so each part is determined by the whole. Yet the whole is nothing but the parts, and each element is one of the conditions that goes to shape it. Once again, then, we have something resembling an organic conception of a whole sustaining and sustained by its parts. This is not because reality must resemble knowledge, but because it appears that certain of the principles of interconnected thought allege such to be the general character of reality. The value of this allegation depends therefore in the first place on the correctness

of our analysis, and in the second on the value of the most complete thought system which we have attained. If this is so far sound that as regards its main deliverances we can call it knowledge, then the generalizations drawn from it by a correct analysis would be true, and this will hold in principle whether our particular analysis is correct or not. The analysis of knowledge, then, may, and as I think does, yield us some general truths about Reality. But if these truths convey a certain structural congruence between knowledge and reality, it is not because the object must conform itself to its subject, but rather, as reflection on the evolution of thought will show, that first by trial and error and afterwards by comparison and analysis of results thought has learnt to accommodate itself to its object.

The test of such a generalization, then, is just that which we should apply to any other. It must be coherently expressed and consistent with other characteristics of reality as experience reveals them. Here the criticism at once occurs that the organic conception gives no account of conflict, disruption and decay. Experience does not show us a world of things all working together in accordance, but rather orderly structures shot through with disorder, wonderfully organized beings that destroy one another, social co-operation marred by conflicts that bring it to nought. How is this reconcilable with an underlying interdependence of things? The answer to this is, first, that, the interdependence of part and whole is a two-sided relation. If each part is conditioned by the rest of reality, it is equally true that it conditions the rest in turn. It is not the mere instrument of an all-embracing principle, not merely submissive but self-assertive. Now a perfect organism still consists of self-assertive parts, but they are so related that each in the most complete fulfilment of its own tendencies aids the fulfilment of the remainder. This is the relation of harmony, and if the world were a perfect harmony then though there would be fulness of life and continuance of activity it would be the activity of members bound up in one another developing each its own nature without inhibition or conflict in mutual relations. In Aristotelian phrase it would be ἐνέργεια, not γένεσις. The world, alas! is not made like this. Whatever we may suppose to be fundamental in it and to have distinct existence seems to be conditioned by and so far dependent on the remainder, and yet also to be capable of clashing therewith in the course of its development. We can see, moreover, that the more fully every such part develops, the more it asserts itself, the greater are the opportunities of conflict, and yet it is only in the fulfilment of every part that the nature of a whole can be said to find itself. Each part exists at bottom because something in the whole requires it, and yet it may be at odds with any other part. Like man and woman in the Indian myth, the parts can live neither with nor without one another. But the latter fact is in both cases the really governing condition.

Difficult as this conception may be, it accords better with a rational view of experience than the alternatives of Monism or Pluralism. Monism either presents us with a blank uniformity in which change must be ultimately unreal, or with a tame order of things submissively fulfilling the behests of omnipotence which robs effort of its significance and makes evil a necessity in an inscrutable plan. Pluralism avoids these errors, but if pushed through leaves us with unrelated elements whose interactions nevertheless form the life of the world. Tacitly it denies all ground for the general plan or pattern of Reality, a position in which inquiry will not rest satisfied. We no sooner reach our separate elements than we begin to think of relations between them, and such relations re-establish interdependence. We have to think of each element in two relations as (if the terms be allowed) ego-centric and holocentric, centred on self, following its own line, asserting its own energies, and yet all through resting on a wider whole, and willynilly playing a part therein. The whole again is nothing but the parts, but it is the union of all the parts in all their relations, and its self-assertion is the assertion of all of them so far as they are harmonious. Thus from both sides we have something making for fulfilment, and yet the process of fulfil-

ment is at every point involved in conflicts and contradictions which threaten it with frustration.

To put the same points in a slightly different form. Reality is in conflict and is yet a unity. To resolve the contradiction the first step is to distinguish between the organic principle and the harmonic ideal. The organic in general is the character of a whole whose parts are conditioned more or less intimately as the case may be in their origin, development, and continued activity by requirements of the whole to which they belong, while the requirements of each part similarly affect the remainder. The definition contemplates elements with a certain character and tendencies of their own, but incapable of fully maintaining themselves or fulfilling their tendencies without the aid of the others. This lack is what we speak of as the requirement. There are great differences in the degree of mutual dependence. Thus all the deeper forms of social union have something of the organic character, but the individual human beings have a relatively high measure of independence, and though undoubtedly depending on some social relation for the fulfilment of their potentialities may and do change their relationships without loss of individuality. In the animal organism the relation is in general reversed. The whole is primary, the separate cells have relatively little independence and the organs become depressed almost to the level of instruments. In the lower regions of animal life, however, the parts have a more independent vitality, and among the lowest metazoa we come to cases in which the individual more nearly resembles a society. The organic union, then, has a great variety of forms. In all there is some degree of independence in the parts and some degree of mutual dependence, but the two characteristics vary inversely within wide limits. So far as the parts are independent there is nothing to prevent them from inhibiting or conflicting with each other, and it is perfectly possible that any two parts, A and B, though in some one respect necessary to one another, may be opposed in their other tendencies. If that is so, A may thwart B in every way short of destruction. The more complex the whole,

the more numerous the opportunities of conflict, the greater the difficulty of maintaining even so much harmony as is necessary to bare preservation. As a matter of fact, in the ordinary organism the parts do exert mutual pressure and constraint as well as perform mutual service. In the harmonic ideal this would not occur, but the fulfilment of each part would lie in the plenitude of its service to the rest. Thus the harmonic principle is the organic carried to its highest term, but there are organic unions with only so much of harmony as is necessary to bare maintenance. In conceiving the ultimate elements of reality as an organic whole of immeasurable complexity, then, we can understand at once the coherent unity and the multifarious conflicts and oppositions that make up the history of the world. It remains to ask what is the principle of union and whether it is something static or something dynamic-something that, so to say, merely holds the world together while its internal conflicts rage, or something which through all Becoming makes actively for the harmonic ideal.

5. MIND IN EVOLUTION.

To answer this question we must turn back to the problem of mind and its position in reality. Our general analysis of cognition has not given the solution of this problem as many thinkers have hoped, and we must look for fresh light. We have, however, in our analysis of reason a hint of the general character of mental activity and this we shall now follow up. We have seen that the general function of mind is correlation -in cognition a correlation of experience leading up to a harmonious system of Thought, in Practice a correlation of Endeavour leading up to a harmony of experience and feeling. The term "correlation" is exceedingly abstract and bare. Its content and even its various methods it owes to experience itself. In general it means the bringing of elements into relations of subservience of one to another, or of all to a whole, and it applies whether the elements are physical parts of a physical structure, or are events of experience, states of mind.

or abstract ideas. The function covers the activities of consciousness, which is the special organ of correlation, from its first appearance in the lowest organisms to the highest achievements of disciplined imagination. It covers the social grouping of mankind. It covers at the other end of the scale the non-mental methods of adaptation manifest in the physical structure of living beings. It thus provides a framework for the entire evolution of life and mind, by reference to which we can place the results of biology, psychology and sociology. The methods and scope of correlation furnish a standard of development and a measure of mind in its own evolution and as a factor in the evolution of life.

In general the living being is a structure whose parts so behave as to maintain the whole which sustains them. particular it is so constituted that its responses to environmental stimuli are such as in general conduce to the preservation of itself or of its line. Now in every animal organism, man included, the conditions of this adaptation run back at some point or another to inborn and presumably inherited structure. We may act on a given occasion with full deliberation and the clearest consciousness of what we are about for ends which concern primarily not ourselves nor even the individuals whom we most love, but our country, our church, or humanity, ends of which we should never have dreamt if we were solitaries living out our inborn tendencies alone, ends dependent on a complex of social ideas and traditions. Nevertheless, if we inquire into the interest in such ends, the basal sentiments, emotions, urgings of conscience and the like, we come back to something which is part of ourselves and which in interaction with experiences and ideas that have germinated and grown in society, and could have grown nowhere else, determine the force of the appeal to which we are, it may be, ready to sacrifice everything else. There are in man certain root-interests which singly or in combination underlie and direct the course of life, and however frustrated or even ignored belong to and remain in the constitution of the individual. On the other hand, the co-ordination of these interests, the objects in which

they find satisfaction, and in general the means by which they are gratified depend on experience and in particular on the social environment to which we are exposed.

There is therefore for man a certain hereditary framework of life, but of a very elastic character. But there is also inherited something much more definite than this-distinctive modes of response, the interaction of the bodily organs, reflexes like blinking or coughing, impulses as of flight or resentment, and specific emotions in response to definite situ-These more determinate propensities which when deemed purely mechanical are called Reflexes, and when involving consciousness Instincts, are roughly subservient to root interests, and are in normal life under their control in case of conflict. In the animal world these specific determinations become more important, though at least in the higher animals we can still trace the effective governance of true root interests. This governance, however, requires mutual co-ordination, and in proportion as it fails the necessity for accurate à priori determination advances, so that we work back to a limit at which the organism either comes into being with certain ready-made modes of reaction or is destitute of a guide. and acts at random. That is, we approach the point at which it would become a machine.

There are, then, two methods by which the correlation of behaviour may be effected. The first is by the inherited constitution. The second is by the efforts of the individual throughout his experience. As the latter method advances the former recedes until it remains only as the ultimate basis of experience and effort in general. The correlation of effort and experience we have seen to be the work of mind and in especial of consciousness, and the successive forms which it assumes are the measure of mental development. We cannot here trace the stages of this evolution. In its lowest form it consists in the arrest of impulses which do not give immediate satisfaction, and in the maintenance and perhaps variation of effort until relief is obtained. One step forward is to bring such experiences to bear on subsequent occasions. Innate

impulses then receive a finer adjustment through usage. Habits are formed, and in proportion as the individual is capable of learning its inherited equipment becomes less rigid. The response which the organism gives at any moment is still on the whole that of a preformed structure, but preformed by the operation of experience on the hereditary foundation. Next, as experience grows more articulate, as its elements are distinguished and perceived in relation to one another, it gives rise (when brought to bear on fresh stimulus) to definite anticipation and shapes impulse into purpose. If there is still a preformed structure, it is now one fashioned so as to look forward and adjust its action in accordance with the tendency of this or that movement to produce this or that effect. As this more articulate correlation extends, the ends to which the instinctive impulses in fact lead come more and more fully into consciousness. The means become indifferent and are chosen with a view to the passing situation, and the plasticity of instinct increases. It is probable that this position is reached among the more intelligent animals before the rise of human intelligence. The distinctive advance made by · humanity turns on the development of social intercourse and in particular of language. Experience begins to be detached from immediate conation and becomes the object of an interest of its own. The permanent objects and principles of action enter into consciousness and are capable of correlation. The instinctive desire is subordinated to the root interest and the root interest itself to the general requirements of life as a whole. Finally, in the highest philosophical thought the process of correlation becomes a critical method whereby the very structural principles on which from first to last the whole procedure of mind has been grounded are brought into consciousness and critically examined in relation to the results which they yield. It is true, of course, that we can never escape beyond ourselves, but it is equally true that we never become aware of a limitation without in a sense transcending it. All our innate tendencies must continue to operate, but the nature of their operation may be made conformable to a

consistent whole. The whole which thus emerges is the entire life of mind seeking the most complete fulfilment of which its nature and conditions admit, and therefore learning to order the material world in accordance with its own needs. In this comprehensive plan all partial, personal, or sectional impulses have to be purged of everything that is mutually destructive, but the severe control entailed is no lesion to inward harmony and happiness so long as the root interests obtain satisfaction, and there is no reason to suppose any root interests of mind which are radically incompatible with one another. Their consistent and effective expression figures in the world of feeling as Happiness and in outer activity as Fulfilment. The feeling sustains the activity which it enjoys and the achievement in which it delights, and it is this harmony or mutual support of feeling and object which we call the good. It is in this ideal, still of course lying far beyond our powers of realization, that we can see the meaning and value of the work and indeed of the whole evolution of mind. Mind is that which correlates experiences on the basis of harmony. The correlation is at any given stage fragmentary, but the fragments have a principle of growth and relations between them begin to appear. The harmonies are partial, self-centred, and so too often causes of disharmony. But to the governing mind every such disharmony becomes a problem to solve, and it is a stage in the ascent to bring the basis of the solution itself into the sphere of consciousness.

Mind, as we know it, exists in separate centres, as many as there are bodies, and the work of correlation establishes two kinds of unity. There is, first, the unity of the personality which only becomes effective as divergent impulses are brought under the one control, and scattered experiences made available for the consistent guidance of behaviour. There is, secondly, the co-operative unity of different persons, each of whom is a separate centre of feeling and activity. In both cases the unity of harmony is to be contrasted with the unity of control. For control it is sufficient that an impulse or an individual be brought into subjection, no matter how, by

extinction if necessary. For harmony it is essential that the element should be developed, that it should have the fullest expression in a form compatible with a corresponding expression of other elements. Thus the foundation of harmony is mutual liberty. But in applying this conception to society on the one hand and to the individual on the other great differences appear. The development of the individual must be through his self-control and his rational acceptance of the social harmony. Institutions are good which thus cultivate character, and to be forced to deviate from this plan is to lose something. We must even admit that the punitive element in law as opposed to the element of voluntarily accepted regulation is a necessary evil, though necessary it undoubtedly is. The social harmony, however, depends upon the truth that in the main the free development of character—the very sense of responsibility-makes for willing co-operation. The living energy of society rests on a complex of relations called from their purest and fullest expression the principle of love. No such categories apply to the several impulses of man. The impulse as such does not reason, or love, or act responsibly. It is reason itself which gives it its due, having fulness of life subject to consistency as its ideal. Thus though there are true analogies between the inner and the outer republic they are analogies with an essential difference, and on the whole we should recognize the dual principle in the social harmony, the principle of Personality and the principle of Love.

It is in this sense and on these principles that mind achieves its own unity and therewith the power of self-direction and the control of its life conditions. This development is the outstanding feature of the main or "orthogenic" line of evolution from the Protist to the highest ideals of philosophy and religion. Mind peeps out first in disconnected centres feebly adjusting impulse to momentary requirements. As it advances in articulation and scope its elements come into relation with one another. The underlying conditions of its activity are brought into consciousness. Ideas dominate action and ideas in turn are brought under criticism. The very structure which gave rise to mind and even, one may

say, is mind, becomes an object to mind and falls within the grip of its reconstructive energy—a structure that can remake itself. Mind in such an ideal—and we must remember that it is an ideal partially realized in all honest and intelligent social co-operation—resembles Deity in scope and power, only if this is God then God is not a personality, but consists of persons united by love, and does not exist in the plenitude of his being from the beginning of days, but grows into unity through time and effort. To the question thus suggested we must return when we have considered the causation of the world-process thus outlined.

6. MIND AND MECHANISM.

In the first place we must ask whether mind as such can cause anything at all. Arguing from the physical point of view, thinkers have supposed it to be the functionless adjunct or effect of mechanical interactions between external things and the physical structure of eye or ear, nerve, brain and muscle. These interactions must conform precisely to the law of the conservation of energy, the sum of potential and kinetic energy remaining constant throughout the series of interchanges. It is thought that the intervention of mind involves a change in the direction of some motion somewhere without physical equivalent. This supposition rests at bottom on the Two Substance view, according to which mind is one kind of substance and matter another kind of substance. Yet this view really contradicts the original supposition of interaction, because substance is a self-determining existent, and if mind is substance it determines its being and its internal changes by internal laws. But if that is so, the coincidence of its changes with those of the equally self-determining physical order becomes a miracle of pre-established harmony. In fact, however, in modern scientific thought matter itself is losing substantiality. It is becoming a mode of something more primordial and eventually a mode known by its behaviour. So too is Mind a mode of reality, and though, being minds, we know it from within in a sense in which we do not know matter, we have treated it throughout this account of its

evolution essentially as a mode of behaviour. Indeed, by much circumlocution and by coining suitable expressions to replace all the terms descriptive of developed behaviour which in ordinary usage imply mentality, we could describe the whole procedure in Behaviourist terms as correlation upon correlation without considering what it is that correlates or is correlated. We might imagine a disembodied intelligence utterly ignorant of this world but capable of surveying it, and desirous of understanding the behaviour of the beings on its surface. Incapable of conceiving mind in body, this intelligence would yet have to formulate the actions of inanimate and animate beings in consistent laws, and he would eventually discover that in each order of beings the elements of behaviour are correlated in different ways, and by the order of correlation he would classify them. The fundamental distinction he would discover is this, that some bodies either remain unchanged or respond to a force impressed on them, no matter what it be, no matter what the effect be on themselves or on any whole to which they belong, while the action of other bodies or parts of bodies is conditioned precisely by these concomitants and effects. The action of an element in them or their action as a whole at a given moment is determined by, that is varies in accordance with, the effect which under the circumstances it tends to produce. For these two modes of determination he would have to find distinct names. Our names are respectively the mechanical and the teleological or purposive. In the teleological sphere a thing exists or is done because it tends to produce something, and this something is a character of or a change in a whole to which the thing done belongs or in which it happens. In the mechanical sphere no such elements enter into causation. The valve does not open in order to admit the vapour but because something pushes or pulls it, but the engineer put it there and arranged something to push or pull it in order that when and as human purposes required it would open and admit the vapour.

We should not, then, distinguish mind and matter as two shand ideas urt teleology and mechanism as two modes of acticture which game reality may act in one relation on one

mode and in another on the other. There is no reason to doubt the equation known as the conservation of energy. That composite piece of reality which is your body has within it mind. If the brain were a magnetic field and nerve excitations subject to magnetic influences, they would of course be disturbed and their course affected accordingly. If we knew nothing about this influence we should find the results constantly diverging in a puzzling manner from calculations based on the known data, but once the magnetic field was made known we should have no difficulty about the causation. As a fact the brain is a field of teleological activity. Its energy operates on things in accordance with a law as peculiar to its constitution as the laws of operation in a magnetic field. Under its influence processes are adjusted in accordance with their tendency to produce results in the organism or in a still wider whole of which the organism is a part. Teleology is a specific mode of causation, and in our experience it is the characteristic method of conscious intelligence and so of mind.

Mind thus being causal, what is the actual extent or depth of its influence in the process of its evolution? To a point the answer is easy, for subject to whatever is finally unalterable in things the control of mind goes as far as its knowledge and co-operative will. If our view of development is correct, it is in process of becoming the controlling principle in reality. But what has it been in the past? How has it grown, what part has it hitherto played in evolution? In biology we are wont to look to physical heredity as the vehicle of development, in sociology to the living tradition. The latter is all mind-work, ideas, customs, the training of intelligence and

It is essential to observe that minds and elements of mind (like separate impulses) interact mechanically when not co-ordinated. The mechanical as such is simply the indifferent, whether we think of its nature as physical or mental. But the mental always acts teleologically in some relations and in some degree. Even in its mechanical interactions we often find on close investigation some touch of conational adjustment. If we restrict the relations and lower the degree we approach a zero point which conventionally we call the physical. But nothing compels us to assume that the limit is actually reached in what we think of as inanimate matter.

the moulding of character. But as to the former, which determines the elementary mind structure in each of us, we are apt to think of the mental as like any physical organ, a survival device thrown up by the organism under the conditions of natural selection. Natural selection, however, as is now well understood, does not determine variation. It does partly determine what variations persist, and this by the rigid test of their immediate survival value to their possessor, but it does not explain origins and it does not explain any developments that have no survival value. Now mind is to be traced back to the very beginnings of organic life. There is definite evidence of conational activity among unicellular organisms, and beyond this whatever in life differentiates structural function from purely mechanical interaction is conation. This would be more easily understood and admitted if it were better recognized that there are grades, probably several grades, of conation below explicit purpose. It being absurd to conceive the lungs as animated by the purpose of increasing the supply of oxygen to meet the need of any enhanced effort, it is natural to fall back on the alternative explanation that there is an accurately adjusted mechanism by which the special activity is stimulated. As a matter of fact, such mechanisms on candid examination are often found to lack just the character of mechanical regularity. There is a factor resembling effort, perhaps in no more than the simple form in which heightened activity persists until a certain result is attained, which makes the difference between vitality and failure. We are not to dogmatize about special structures on the strength of general considerations. It is for the physiologist ultimately to decide how far the phenomenon of life can be construed on rigidly mechanical principles. The suggestion here made is merely that if and in so far as they deviate from such principles the cause is conation in some rudimentary phase, and conation is the activity of mind.

Now conation directed to stock preservation has of course high survival value, and so far the development of mind presents neither less nor more difficulty than that of a useful limb. But (a) this does not hold of all mind developments.

In some like the æsthetic tastes it is impossible to trace any survival value. Others, like the spirit of inquiry, are dangerous to the individuals all the way from the inquisitive kitten that burns itself up to the too original thinker who is burned at the stake. The cognitive interest is ultimately of high survival value to society, but this value depends on a certain equilibrium with other interests and conditions of life, and the increments are perhaps more dangerous to their individual possessor than a slight deficiency. The same may be said of the social feeling—the very foundation of the success of the community, but again of dubious value biologically to the individual. It is impossible to interpret the development of these interests by small hereditable increments fostered by the relative success in the struggle for existence of those stocks in which the little more is to be found. Useful as they are at successive stages of advance the mind qualities must, it would seem, have a push of their own behind their biological development the counterpart or rather the germ of those deliberate efforts which on the human and social level expand human faculty. (b) This view is reinforced by the consideration that particularly in the form of co-operation from the dawn of parental care upwards the growth of mind restricts the area of natural selection and finally reduces it to a minimum by preserving the great majority of the young, irrespective of their power to fend for themselves, to maturity. virtual abolition of the struggle for existence is in fact the obverse side of the organization of life introduced by mind. Thus it would appear that some qualities of mind are biologically too useless and others a great deal too useful to be explained by natural selection.

The alternative conception of a determinate variation has been generally rejected by biologists because there seems to be no intelligible reason why, e.g., one epidermis should tend to clothe itself with hair and another with bristles, and a third with feathers, and to say that each has a distinctive inherent

The common explanation first hinted at by Darwin that the community in which such interests predominate survives involves at least in human development a complex intermixture of the biological and political point of view which I cannot attempt to unravel here.

tendency in its specific direction seems like one of those metaphysical explanations which merely repeat the thing to be explained. This holds of physical things because qua physical one thing does not try to become another. But with regard to mind it is rather different. Mind, as we have seen, is the conational principle in reality. When it develops there is no difficulty in conceiving its germ as carrying the effort to become more, to grow and mature. We must only avoid imagining this effort as a clear purpose, for which germinal mind has not the equipment. But in the light of what has been said of rational harmony we must conceive the full maturity of mind as one, as of uniform texture and interrelated parts. within this harmony there is rich individual diversity because the scope of mind is infinitely greater than that of the individual brain, and there are all the quaintnesses and grotesqueries of character due to those abiding humorists the conditions of existence. But mind, we may say, has its normal development limited and even distorted by the conditions of existence; and if that is so, mind has in it from first to last the conative tendency to fuller expression, limited by the weakness and weariness of the body, checked by the necessity of meeting temporary survival conditions, damped by the indifference of a world unready for the next move. The suggestion is that every development of the spirit of inquiry, of sensitive imagination, or of human tenderness, is an effort of the mind within the organism and an experiment which may or may not succeed.

On this view the method of orthogenic evolution is not natural selection but Trial and Error. Natural selection—I speak of it as commonly understood—is a metaphor for a process which is wholly unintelligent, acts only through physical heredity and moves towards success in survival, nothing more or less. Trial and error has some measure of intelligence 1 behind it, acts through memory and communication and is directed not only towards life but towards a good

In point of fact, trial and error persists long after the formation of clear purpose as the test of the purposes themselves. It would only vanish in a completed system of rational thought.

life. The difficulty is to connect its actions with physical heredity, and in the present state of our knowledge all that we can suppose is this. The mind in the individual throws out new efforts, forms new thoughts, experiences deeper emotions. These have no direct effect on the gametes, but they form the basis of a life which will be the environment for the next generation. Now, since mind is in essentials of one tissue, the germ plasm of the individual who has reached a certain stage carries the various possibilities of development around and about that stage. Which of these is most likely to develop depends upon the environment. But the parent, by giving good effect to a certain impulse, has improved the environment for that impulse and so increased its chances of survival in the next generation. Thus, where and in so far as men by acting on their social impulses improve the social order, they increase the chance of survival for the more socially minded of their sons who in surroundings of disorder were like to have perished. In this indirect fashion trial and error may be said in its lower stages to act through heredity on the racial type. So far mere survival is the test, but in proportion as this is secured the scope for experimenting on betterment is extended. In a word, from germ to anything short of full maturity mind develops its own growth by the method of Trial and Error. It is not a product of the biological conditions, but an independent factor in development to which the biological conditions present a problem to be solved.

7. THE UNITY OF MIND.

But this opens out a much larger question. We have seen that in mental evolution the principal steps consist in the awakening of consciousness to something that is already real, the end that underlies the impulse, the principle on which the inference rests and so forth. Consciousness does not invent but discovers. Undoubtedly what is discovered is modified, assumes a new importance, and makes fresh connections as the result of discovery. Such modification is the essence of development. But that which has developed, that of which we were unconscious, was already there in its fundamentals.

This is in particular true of the unity of mind. When the higher reflection reaches the conception of a bond between all rational beings, even between all living beings, it does not invent that bond. Its affirmation is that this bond exists, has existed and will exist, recognized or not. That is, mind notwithstanding its multitudinous distinct centres, notwithstanding their separation and opposition and mutual destruction, notwithstanding even the hard necessity as it seems to be that the higher forms of life must live upon the lower, has yet some thread of unity. It is not the unity of personality, but the unity which in its highest form is of the nature of Love. Now this unity is developed into a great force so far as it enters consciousness. We have seen it as that which makes societies and religions, and if fully understood it would become the dominant principle of human life. But once again it was always there, not created by our acceptance nor destroyed by our rejection, but rather focussed through our apprehension and so rendered capable of doing the work which it has to do. It is one in principle throughout its development in the growth of human thought.

We are led, then, to think of a certain unity or connectedness of mind as the principle underlying development. It looks, in fact, just like that pattern or interconnecting principle which we saw at an earlier stage to be implied in a rational interpretation of the Real. For the Real, we saw, must consist of interdependent parts. On analysing interdependence we were led to conceive Reality as an organic system, in which, however the elements might thwart one another, they were dependent, each for bare existence in its position among the rest, on mutual requirements. That is to say, the character and relations of the parts are conditioned by the structure of the whole which collectively they form. Now this is correlation, and correlation is the work of mind (for the physical aspect of anything we have seen to be just that in which it acts in indifference to other things). But we must not suppose the correlation to be effected by a mind acting from without. We are speaking of Reality as a whole, and the mind is within. It is itself an aspect of or element in Reality, just that aspect in which all other elements are correlated. It is, in fact, the principle of interconnection among elements, each with tendencies of its own, by which it is strictly conditioned. Abstract this relation and we have the reverse aspect, under which each element acts in indifference to the remainder. In the concrete both aspects, the Teleological and Mechanical, are presented and their interweaving is the fundamental characteristic of Reality.

But here a complication arises. All the physical aspect of Reality appears to operate quite mechanically. Mind always behaves teleologically to a point, but the limited mind of the individual also acts mechanically, i.e. with indifference, in relation to purposes beyond its scope. Clearly it is only so far as mind is at unity with itself that it can correlate the elements of the Whole. Now we have come upon an underlying unity of mind in the analysis of mental evolution, and have suggested its identification with the correlating principle that we require. Yet there is a difficulty here which should be frankly stated. The unity postulated in the evolution of mind is the unity of connection between distinct minds. The unity of the organic principle suggests rather the unity of a single correlating centre. We must not seek to escape from this discrepancy by treating the organized co-operation of minds in society as constituting one mind, for they are not one as the individual is one. Still less must we degrade the individual to the position of an "adjective" of the universal. Frankly we must recognize the ultimate unity to be of a type in which the familiar forms of unity are combined, and which is not embodied in exact model in any form of partial experience. We have to conceive a mediating unity on which the entire effort of correlation rests for its final consistency. Whether this unity would be less inadequately described as a Central Mind or as a pervading spirit, and whether such a category as Personality is fitly applicable to it, I cannot here seek to determine.

So that the ordinary contrast between Mind and Matter approximates to but does not precisely equate with the contrast between Teleology and Mechanism.

However named or pictured, we find on analysis a conative intelligence interconnecting the elements of Reality. This conception is confirmed by the broad results of experience as briefly indicated in the foregoing section. Nature does not exhibit the consistency of perfection befitting the plans of omniscience, but its structure does maintain itself through innumerable changes, and bare maintenance in such conditions implies continuous correlation of functions. But there is more than mere maintenance. In the process of change, upon the whole, finer and more articulate structures emerge. This is Development, and in Development there is (as we learn from Mechanics) no creation of energy, but a release of energies which are at first so locked together as to inhibit one another, and a co-ordination whereby they co-operate in maintaining some ordered system. Thus not only life and mind but physical structure rest for their development on the adjustment of parts and their behaviour to the maintenance of wholes, and the entire evolutionary process, whatever the waste and destruction it involves, is confirmatory evidence of the underlying activity of correlation, operating continuously with cumulative effect.

Reality, then, is a whole of elements each conditioning and conditioned by the residue. Each has its own tendencies, whence the possibility of collision and mutual arrest. In particular, if it is a mind it has its own needs to fulfil and moves to harmony within its own world. But every element has also its link with the whole, and that is its participation in or subordination to the correlating mind. This mind then is to begin with that which holds things together, the principle of unity and inter-relation. But this mind in turn has its characteristic tendency which is the effort to that complete harmony of which the actual world-structure provides but the rudiments, and this effort operating among an infinitude of elements through an infinitude of conflicts is the process of Reality. Some deny that development can take place in Reality as a whole. We must affirm, on the contrary, that the characteristic process of Reality as a whole is development. Reality is through an interrelation of elements, but whereas

at its lower limit this interrelation is just as much as is necessary to the co-existence of the parts, at its upper limit it has worked all the energies of all the elements into its service.

We have thus answered the question with which we set out (above, page 169). The principle of interrelation is not static but dynamic. It is a teleological principle directed to harmony, and it is, in essence, Mind.

8. THE BEGINNING AND END.

The conception of development in the whole raises a speculative question which cannot be discussed in the space available. When we say that the whole develops, we mean the structure of the whole as it is at a given time. This is a mere section through the greater whole which contains the entire process of development. This whole, of course, does not develop, for all development is within it. But does development begin in time and does it end? This raises the question between Time and Eternity on which I would hazard only this. Time has a dependent existence. It is the abstraction of something common to all Processes, and that is why there cannot be, as some physicists are suggesting, many time systems, for all these are comparable with one another. Process, too, is an adjective, a warp on the woof of permanence, wherein the development of an imperfect structure is made possible. Reality as a whole is Eternal, but this does not mean either that it is timeless, or changeless, or merely of indefinite duration. Eternity and time are not quantitatively but qualitatively distinct. The former, if we can grasp it at all, seems to mean the gripping together of past and future in a present in which there is therefore no evanescence or perishing. In this conception time is encapsuled as a factor but corrected, so to say, by its converse. As eternal, therefore, Reality contains time as the factor through which the relation of harmony to its conditions takes effect. In eternity the entire process of development would be present together like the movements of a body laid out in a spatial curve. But would time end with the completion of the process, or should we conceive it as changing its function and serving the activity without

genesis which would seem to express harmony fulfilled? Or should we put it that time ceasing to be a distinct aspect would be merged in eternity? The point of difference is that in time things perish, and as long as there is disharmony it is necessary that they should perish. Even viewed sub specie eternitatis they must be viewed as being overcome. In harmonious activity, on the other hand, everything is conserved. Time, then, might be conceived as having a beginning and an end in eternity along with the development which it serves. We cannot here pursue these highly problematical issues. We can only be sure that Reality does not perish and that the end of its development is not the peace of death, but the harmony which keeps all things alive.

Some parts of this account are, and till our knowledge is greater must remain, hypothetical. The clear points are-(1) Reality is a system of interdependent elements. (2) In these there is a teleological factor, Mind working towards Harmony by correlation. (3) There is also a Mechanical factor, the tendencies of the elements so far as uncorrelated. It follows (4) that Reality is not purely spiritual, or "rational" in the sense that it is simply the expression of a purpose. It is rather the effort of a closely conditioned purpose. Evil is not to be explained away. But (5) there is no evil principle in the sense in which there is a good principle. All evil is traceable to the failure of purpose to co-ordinate things which so far as unco-ordinated act in mutual indifference. Evil is not inherent in the tendencies of elements as such, but depends on the conflicts which they bring about when unco-ordinated.
(6) The term "Mind" expresses an interconnection among minds which develops into a harmony. Harmony in general is the fulfilment of all faculties and needs of mind so far as mutually compatible.

Behind these general principles lie certain convictions which to my thinking form the fixed points of any rational philosophy. The first of these is the conviction of goodness—goodness neither laid up in heaven nor moving as a metaphysical principle upon earth, but warm and real in the hearts of living

men and women. There are those whose faith is founded on inner certainty of the Divine. There are others of us who have seen something of the qualities we call divine in man, sometimes doubtless sadly broken and mingled with a different clay, yet bearing to any understanding mind the ineffaceable stamp. And there are those more greatly privileged who have learnt to know some nature crystal-clear, compact of mother love, with thoughts by instinct bent on others' needs, sensitively tender, yet of indomitable spirit, fearless and believing no evil, through very selflessness enjoying and reflecting the charm of life. This, the sceptic may say, is to describe a woman as a man sees her in the hour of romance. It may be so, and it may be that in that hour some real things flash out which are afterwards obscured. Be that as it may. there are not wanting those who have put the vision to the test of lifelong companionship, only to find it gaining in clearness and truth. No other relation of life can yield such intimacy of understanding, yet comradeship in great causes does not fail to reveal men of noble thought and faithful heart, men who sink themselves in their mission, but do not let their friend sink, men whose staunchness stands the test of long years. The being of such men and women is not matter of faith but of experience, though an experience which, like every other, requires the eye that can see. But what general conclusion can philosophy draw from it? you ask. If there are the noble and the good, are there not also the mean-spirited and the knaves? Why should the one be the more significant than the other? To this question the theory of development supplies a ready answer. The failures are the undeveloped, and if you would know what development can do you must look at its successes. More precisely, we conceive the elements of things acting severally each on its own lines and yet drawn together in a relation which at its height becomes Love. Whatever is repellent, fearful, suspicious, unimaginative, brutal, has remained relatively speaking self-centred. All that love touches has the nobler quality. But of this we may be sure. No man or woman such as I have ventured to speak of, nor vet any such quality as theirs, though less developed and

marred with imperfections, ever came out of the clay, unless the clay itself has mind. No rational observer (if we may revert to that fancy) from another universe would admit such a hypothesis. With the utmost allowance for what development could do he would demand some continuity, and if he was assured that their origin was from matter he could only infer that matter was alive and instinct with some very wonderful imaginations. As the geologist is sure that the isolated boulder does not spring out of the alluvial on which it rests but is a detached fragment of the mother rock, so with even stronger logic would he refer the radiant soul to its matrix of spiritual being. Every detailed hypothesis of origin that we may construct may be faulty. The immanent spirit may be no nearer the truth than the transcendent Creator. The idea of development may pass away like that of special creation. One truth will stand firm. The world which has engendered such beings as we have known is no mean world. It is a world worth living and fighting for, the world which they have trodden. It is the dwelling of a spiritual power, be it what it may, which will some day come to its own, be that how it may. Of the how and the why our philosophies give what account they can, but behind them lies something surer than faith, firmer than abstract reasoning, those most intimate and sure experiences which reveal the true capabilities of the human soul.

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PHILOSOPHY AND RELIGION

By W. R. INGE

Born 1860; Eton and Cambridge; Dean of St. Paul's.

BIOGRAPHICAL

I HAVE not, I regret to say, had the sound philosophical training which is given to students in the Oxford School of Literæ Humaniores. At Eton, "my most kindly nurse," we were not, in the seventies, encouraged to think that life has any problems to solve; and at Cambridge "the riddling Sphinx" (as Œdipus says) "compelled us to attend to the matter in hand, and to let the unknown go." I have often doubted since whether it was worth while to keep in such rigorous training for four years; but at least I routed the Sphinx; the examiners always placed me where I wished to be. As a classical tutor at Oxford I began to lament the gaps in my education, and to search for a philosophy by which I could live. This I found in those Christian mystics who were steeped in the Platonic tradition, and I soon discovered that Plotinus is the father of those who wish to climb the hill of the Lord by this path. My book on Plotinus was nearly ready when the invitation to a Gifford lectureship enabled me to publish under these pleasant auspices the fruits of over fifteen years' study. I owe these biographical details to my readers; for though I have read much and thought earnestly, I cannot suppose that as a metaphysician I am quite worthy of the distinguished company in which I find myself between the covers of this volume.

PHILOSOPHY AND RELIGION

I AM unable to distinguish between philosophy and religion. If the perfectly real can alone be perfectly known, and if to know God, the perfectly real Being, is eternal life, the goal of philosophy is the same as the goal of religion—perfect knowledge of the Perfect. When we say that we know a thing to be true, we assign to it a place, not in a hypothetical world of mathematical symbols, but in a real world of actual values, and in realizing this world logic is only the instrument of an activity in which the whole personality is involved.

To call this pursuit of divine knowledge intellectualism is to mistake the meaning and character of knowledge. We only know what has become part of ourselves, what we understand and what we love. Huxley is reported to have said: "It does not take much of a man to be a Christian, but it takes all there is of him." The first clause sounds disparaging: but perhaps if a man has put "all there is of him" into the highest of quests, he is already a good deal of a man, and in the way to become more. Perhaps we may even say that such an one will end by being no mean philosopher, though he may never write a book or give a lecture. "A lover of wisdom" is a modest title, and in loving the highest Wisdom the quest is an earnest of the prize, for, as Pascal and many of the mystics have heard the voice saying, "Thou couldst not seek me if thou hadst not already found me." This is the truth in the ontological argument. We did not make our ideals. best that we can think is a promise of the best that is. believe this is an act of faith, but of reasonable faith. In all

philosophy we come at last to a point where a man must trust himself.

What we love and deeply care about, that we know and that we are. The unquestionable (if not unquestioned) fact of purely disinterested mental and emotional activity is of great importance as proving that man is not so "poor a thing" as not to be able to "raise himself above himself." It is in fact only by means of self-forgetfulness that the personality can expand, establishing new correspondences by which the character is exalted and enriched. The motive is never mere curiosity, but something akin to what Spinoza calls the intellectual love of God. The concepts of philosophy are hypostatized ideals, recognized as supreme realities.

It is easy to play at philosophy, as it is easy to play at religion. The attempt to build a coherent world in thought is an interesting game. But until we ask ourselves what the counters stand for-what they are worth in terms of life, we have been only playing. A philosophy which sets us no tasks is not our philosophy: it is hardly a philosophy at all. though a rule of life is not the direct object of our search for truth, a search which acknowledges no goal outside itself, the truth which we seek is a kingdom of values, into which we cannot enter while we are busied only about their symbols. There have been philosophers, of whom Hume by his own confession was one, whose speculations were an intellectual diversion; in the hour of bereavement, for example, he was able to find comfort in beliefs which had no place in his theoretical system. It is quite possible that thinkers of this type avoid inconsistencies like those which have been found in the "God-intoxicated" Spinoza. No system of thorough-going rationalism has yet been discovered which finds room for all the intuitions and aspirations of the "mind in love."

For this reason, the poetical imagination has been welcomed and given free play, not only by the crowd who do not philosophize, but by some of the greatest thinkers. Mythology claims a large place in all religion, and it cannot be kept out of philosophy, as soon as the thinker tries to live by the rule of his thoughts. The philosopher's heaven is not peopled only by bloodless categories. His imagination fills it with warmth, light and colour. The ideas are clothed with forms; the determinations of the Absolute become quickening spirits. "Create he can Forms more real than living man"; but it is a living man who creates the forms out of his human experience.

There is no hard and fast line between the imagination which enriches experience and the arbitrary fancy which impoverishes it. The luxuriant outcrop of myth may choke both philosophy and science. In religion, too, myths congeal or evaporate, and either process is fatal to them. Their province is to give substance to the faith which wanders in worlds not realized, bridging over, in some sort, the gap between the world of concrete fact and the world of value, between the things that are seen and the things that are not seen. But when the imagination no longer plays upon the dark region which it has filled with forms of its own, those forms either vanish into thin air or petrify into hard facts which claim falsely to belong to the world knowable by science.

Plato shows his greatness by using the mythical form freely, without confounding it with science. Those of his interpreters who have neglected the myths as otiose parts of his teaching have missed that part of his message which he may even have considered the most valuable. For he was as much a prophet as a systematic philosopher, and was not content to write always in prose. He was conscious of deep convictions which were incapable of logical proof, and so he expresses them in the language of poetry, using the legends of the gods or the language of the mysteries, and saying, "Not this, perhaps, but something like this must be true." He is content to leave his eschatology in a mythical form, as indeed any eschatology must be left so.

The real world, as I understand it, is neither the material universe regarded as existing independently of mind, nor the thought of a universe in the mind of man. It is rather constituted by the unity in duality of thought and its object, the

two being inseparable and in complete harmony. If this is true, the Spirit who makes the world and sees it as it is must be a transcendent God: for finite spirits do not know the external world as it is; none of them know much of it, and there are parts of it which are entirely unknown to any finite mind. By far the largest part of the ponderable matter in the universe is withdrawn from the knowledge of any finite living being. My view of the world depends therefore on the belief that the Creator of the universe lives his own life not in it but above it. The creation is an act conformable to his nature. but not necessary to his existence. His objectified thoughts are not himself but his activities. In the world of space and time the thoughts of the Creator are transmuted into vital laws. In the eternal world, "he spake and it was done; he commanded, and it stood fast." But in the half real world of becoming this is not so. The Idea is doubly split up, spread over many places and many times. It is an energy putting out force against that which impedes it. In many particular instances it may not be realized within our experience.

The conditions of such a world as ours are so different from those of a perfect eternal world that it is hard to avoid an intractable dualism except by reducing the world of becoming to a mere appearance, or the eternal world to an unrealized ideal. It is impossible to solve the problem by setting an imperfect world in the present against a perfect world in the future. We cannot levy unlimited drafts on the future to avoid bankruptcy in the present, like the belligerents in the late war. These three expedients have all been tried, and all have manifestly failed. If the world of time and place is unreal, we are denizens of a sphere in which nothing ever really happens. The will is an illusion, and no explanation can be given of the fact that time and change and moral choice seem to us very real indeed. If, on the other hand, we hold that the ultimate values do not belong to the realm of fact, but are merely ideals which should regulate our conduct, we have abolished the absolute standard by which we assign relative values to all experience; we have opened the door to merely subjective and fluctuating valuations which there is nothing to check; we condemn ourselves to an endless struggle without victory; and in denying an eternal world we are committed to assert the ultimate reality of time, which is always hurling its own products into nothingness, and which carries with it no promise or even hope of unending progress. The third notion, that of a new heaven and a new earth to succeed the present universe, is a mere survival of religious apocalyptism, and has no place in independent enquiry.

What then remains, if we are not to acquiesce in two worlds—a world of substance and a world of shadow, or a world of facts and a world of values, not to be brought together? Reality, I hold, is neither mental nor material, but a realm in which thought and thing, fact and value, are inseparable, neither having any existence without its correlative. The real world is a coherent organic unity, spaceless and timeless, but including all happenings in space and time in their proper relations to itself, that is to say, sub specie æternitatis.

That the attributes of ultimate reality are values, and that they may be classified under the heads of goodness, beauty and truth, "a threefold cord not quickly broken," seems to be generally accepted by the deepest modern thinkers. For example, Mr. Bradley writes, "Goodness, beauty and truth are all there is which in the end is real. Their reality, appearing amid chance and change, is beyond these, and is eternal. But in whatever world they appear, that world so far is real." And Windelband: "Logical, ethical, and æsthetic values make up the entire range of the human value-activity which can lay claim to general recognition and the necessity of actual unconditionedness. In each of these provinces the valuation of the empirical mind has a significance which transcends the mind itself. . . . In its metaphysical significance it is a rational community of spiritual primary reality that transcends all experience. There can be, as regards content, no further universal values beyond these three, because in these the entire province of psychic activity is exhausted." These, then, are the attributes under which we know God, and

the real world in which his thoughts are objectified. We are closest to true knowledge when we can see and feel these attributes of God without us and within.

On the other hand, the world of sense is not a stable object of knowledge at all. It is a mental construction from admittedly imperfect data, like an impression of a tune played on a piano in which most of the notes are dumb. Man sees only a few out of many colours, and hears only a few out of many sounds. The superior brightness of yellow is due to ts being near the middle of our spectrum; other eyes, adapted to the conditions of life on other planets, would receive and report a different set of colours. What we call things or objects are not at all like what the physicist tells us about their composition. We construct our world for ourselves because our senses, and our intellects too, have grown in response to human needs. So in higher matters, we make nature and God after our own likeness. Ignorance, selfishness, and prejudice warp our judgments, and induce a wrong principle of selection. Nothing can be much further from reality than the "practical man's" notion of it. We have heard, in our nursery days, of a certain pussy-cat who went to London to visit the Queen. But all she saw in the royal palace was a little mouse under a chair. That is, of course, all that a pussy-cat would see. Similarly there are many men whom the world calls successful, who have trained themselves to see nothing in life but stepping-stones and obstacles to their ambition. To others all the world's a stage; to others again it is an arena. It is possible in this world to know the price of everything and the value of nothing. The real values are ignored, and a spurious world of base values is set up, constructed by the perverted will of the subject out of a perverse and distorted selection of objects.

We none of us escape from these distortions, for nobody is able to see the whole of reality, or to see what we see as a whole. The conditions of our life in time compel us all to run in blinkers. We cannot form a judgment without dividing what is indivisible, and thus impoverishing both limbs of it.

It is here, no doubt, that the danger of what is called intellectualism comes in. Our concepts do not correspond with realities, but we are obliged to treat them as if they did. In the scholastic philosophy, for example, we often feel that its excellent logic is futile, because it mistakes counters for coins.

For the Platonist, it is the diremption of a real whole, with the breaches of correspondence between thought and its objects which it involves, which constitutes the unreality of spurious wholes regarded as real wholes. Both consciousness and its objects are infected by being broken up. Crude realism and crude mentalism are extreme examples of this divorce between thought and thing, but the working philosophy of the man in the street is built upon a rough and ready synthesis of "opinions" which are far below real knowledge.

The error is not in seeing outlines where there are none. The outlines exist, though not always where we draw them. The error is in seeing what is within the outlines out of its true relations. All the selfish passions, and some which are not selfish, hypostatize certain aspects of the real, and blind our eyes to the rest. The fanatic frames for himself a false absolute out of some narrow interest, and commits innumerable follies and crimes in the service of a grotesque idol.

This line of thought may seem to point to the new philosophy called pragmatism. The pragmatists hold that since all our knowledge was evolved in response to practical needs, it is useless to try to escape this limitation. Truth for us, they say, is what works, and whatever works may be called true, since we have no other criterion of truth. It follows that we have the right to experiment in any beliefs that we may choose, at our own risk. But it is quite certain that the human mind is not satisfied with this unmitigated empiricism. Deep in the hearts of all of us is the conviction that there is an absolute truth which is true for everybody, and that it is not hopelessly out of our reach. Without an absolute standard, we may dare to say, there could be no relativism. A sounder philosophy maintains that we cannot find out what is true

even for ourselves except by renouncing the reference to personal interests, and endeavouring to enlighten our minds so that the laws of all life, which we assuredly did not make and cannot alter, may become our guiding stars. The mystic also is an empiricist, of a kind; but his progress is per tenebras in lucem, and his conviction is, not that whatever suits him is true, but that whatever is true will ultimately suit his transfigured soul. Meanwhile, the purity of the will to truth is one of the greatest—and latest—achievements of civilization. To deny it, as the pragmatists seem to do, is to commit treason against one of the ultimate values.

The tendency of much modern investigation into the conditions of knowledge is to discredit all knowledge alike, which gets us no farther. We cannot philosophize at all without an act of faith; we must trust ourselves up to a point. And there are certain convictions about the universe which a man can hardly doubt, unless he is defending a thesis. That the world as known to science has reality, as embodying ultimate values, we all really believe. We may say if we will that it gives us only an abstract view of reality, that it is only an appearance, and so on; but in the words of an excellent Quaker writer, "the shadow is a true shadow, as the substance is a true substance." I do not hesitate to say that we shall learn more of the nature of thought by studying the external world than by analysing our own mental processes.

One of our most firmly rooted convictions is that there is only one Time, and that, what we call clock-time. *Tempus est quod aequabiliter fluit*, as Newton said. I am no mathematician, but I refuse to believe that either Bergson or Einstein has destroyed a belief which is one of the postulates on which our knowledge of the world is based.

The world reflects, in an imperfect medium, the mind and nature of its Creator. It is perpetual, as its Creator is eternal; it is boundless, as its Creator is infinite; it is regular, as its Creator is changeless; it is rational, as its Creator is all-wise.

It is most unreasonable to expect philosophy to answer the

questions Why the world was made, and How it was made, though the latter question will continue to be asked. There is no reason why such knowledge should have been imparted to us, and if it had been, we should probably not understand it. Heracleitus says that the way up and the way down are the same; and it may be so; but the way up is the path which we are to tread, and we only learn it by experience—solvitur ambulando. The way by which God creates finite beings after his own image is not for us to know. We must take the world as we find it.

The fact that intelligent beings are sent into the world to realize qualities which are only potentially theirs to start with, and that a desire for moral and spiritual advance is implanted in all of us, has led some thinkers to regard progress as an inner law of the whole universe, forming in fact its ultimate nature. This theory, of course, involves the belief that time is real, and that in history we may find the basis of reality. This again seems to imply that life in itself is a value, apart from its contents. The struggle is the prize, for there is no prize apart from the struggle. This optimistic estimate of life is of purely subjective import; it is helpless against such pessimism as that of Schopenhauer, both alike resting merely on temperament. But the philosophy of progress swarms with other difficulties. If we had a true history of the world, as a Divine Being might write it, it would no doubt be highly instructive; but history as written by historians tells us little that is at once certain and valuable. We cannot decide with any confidence whether human nature, apart from the accumulations of knowledge and experience, has progressed steadily and is progressing now; and it is notorious that the civilization which is the crown of human achievement so far, has many severe critics and not a few bitter enemies.

The arrogance and absurdity of arguing from the historical progress of humanity—assuming that this can be proved—to progress as a law of the whole universe and of its Maker, become more apparent the more we think about them. Let it be granted, for the sake of argument, that one species on

one planet has, during a short episode in its career, not only made its life more complex, but raised it to a greater worth. Does anyone suppose that this process can be continued indefinitely, or that it makes for the good of other species on the same globe, or that the inhabitants of other worlds are all on the upward grade, or that the inevitable cosmic changes which must make every abode of life uninhabitable after a time will be suspended in certain cases? Is the idea of a progressus ad infinitum either thinkable or consoling? And lastly, how can there be progress in an infinite whole? This bastard philosophy, so naïvely anthropocentric and so incompatible with any scientific view of the universe, is intelligible as a by-product of what has been called the age of complacency; but it is strange to find it revived in our own day by Croce and Gentile, and by some writers nearer home. The fact is, however, that when the idea of an eternal world is rejected, the values which properly belong to it are left homeless; and so a desperate attempt is made to save them by attaching them to the world of becoming. The values of the world of becoming, in so far as they are not recognized as brought down into it from a higher sphere (to use an obviously mythical expression), are fleeting and of poor quality: but if, to please this school, we could imagine them as continuously increasing, and prolonged either to infinity or through a vista of ages to which we can assign no end, it would be possible to invest them with an almost unlimited dignity. and to regard them with a religious reverence. It is perhaps in times of disillusionment that men most crave for a philosophy in which a new creative power may take root. The new school, however, seems to have been unfortunate in adopting the one theory of the universe which can be definitely refuted.

It would be absurd to deny that it is a difficult problem to co-ordinate the world of things and the world of values. To me, however, it seems that this is not a correct way of stating the difficulty. There are no things without values, and no values without existence. Bare existence—the "that"—

seems to be an abstraction like a mathematical point. We know of nothing about which we have no notion "what" it In other words, all knowledge is of the quality of existents. But quality-judgments are related to universal standards which are part of the texture of the mind. Unity, coherence, freedom from self-contradiction; regularity, harmony, beauty; conformity to some worthy and rational end-these are standards to which we bring all experience. The world known to science is just as much a realm of values as the world known to religion. The trouble is that the values are not the same. Goodness, truth, and beauty are attributes of reality which have each their own characters. For example, truth and beauty are free from the desire and expectation in which the moral will moves and has its being. Morality deals in part with negative values, which appear in æsthetics also as the ugly, but in science only as error. It is doubtful even whether a hierarchy of any kind is admissible in science. The biologist as such has no business to scorn the parasite or to lecture the cuckoo. Our dualisms thus result, not from the impossibility of combining the world of things with the world of values, but from concentrating our attention on one of the ultimate values, and endeavouring in vain to subsume one or both of the others under it. These difficulties are troublesome, but when we understand how they arise, they need not shake our confidence in our general view of the nature of reality.

The mind which ultimately assigns values is the mind of God; but men in varying degrees can "think God's thoughts after Him." The power to do this is the reward of training and discipline. Hence the pursuit of philosophy demands a severe rule of life and a constant effort to attain self-transcendence by self-mastery.

Here we come to what, we may venture to say, is the greatest contribution which the Founder of Christianity made to the science or art of living. He taught us that the wisdom to value justly, or in other words to know truly, cannot be gained by any self-regarding scheme, whether it be crude hedonism or

the more refined forms of self-culture and the desire for individual deliverance from evil and error. It is chiefly, he taught by developing love and sympathy that we rise in the scale of being. It is not to be forgotten that science and art both emancipate us from self-regarding preoccupations; but even these pursuits may be contaminated by the wish to build for ourselves "a pyramid of existence," as Goethe said, and to stand in proud isolation on some "serene temple of the wise," from which we may watch the common herd wandering in a vain search for the "way of life." But love cannot be a conscious means to anything alien to itself. It obliges us to weigh our anchor and let ourselves go without counting the cost to ourselves. To do this, Christ taught, is to fulfil the law of our being. That this teaching is true will hardly be doubted. Its philosophical implications may be worked out differently by different thinkers. But it seems to prove at least this, that our personality cannot grow in isolation, nor by drawing all experience into itself. We can "find our soul" only by losing it—or as we say losing our hearts—to others. A study of the life and character of Goethe will convince most English readers, at any rate, that the highest genius cannot prevent a life devoted to self-culture from being, on one side, even morally repulsive.

We do not, however, exhaust the Christian meaning of love if we identify it with altruistic sentiment. Love of our neighbour is to be rooted in love of God. That is to say, our relations with other finite spirits are not direct, but are mediated by the intercourse of the soul with what is above itself. An old Church Father says, "When thou seest thy brother, thou seest thy Lord," meaning, I take it, that what we love is not our neighbour as we see and hear him, but the Christ in him. Pure judgments of value have always an universal quality; there is something superhuman about them, and we must leave what has been called the world of claims and counterclaims behind before we can reach them. It is easy, from this point of view, to understand why some thinkers put art, science, and religion above morality. They deal with the

eternal and absolute, whereas morality is bound up with the will, and with time, the form of the will. But if we regard morality as the attempt to realize goodness under the form of time, this inferiority disappears. It is only the form of morality which belongs to our present state; and the same limitation is apparent in our science and our art. Whether our aim is to act rightly, or to discover the truth, or to produce something beautiful, we are subject to the laws of becoming, and perhaps we never wholly attain.

The attempt to rank the moral will on a lower plane than science and the æsthetic faculty is to be deprecated, because it is in conscience that we have the clearest affirmation of an absolute Good. The moral verdict may be mistaken, but its claim is absolute. We have in fact a perfectly plain and decided testimony, in the constitution of the mind itself, that the Good, the True, and the Beautiful are what they are unconditionally. This is what is meant by belief in God; without this conviction there can, properly speaking, be no theism. The existence of God is a postulate rigorously involved in the nature of valuation, as soon as we rise above merely individual or historical relativity. And it is needless to say that moral goodness, in a higher form, is an essential attribute of what we mean by God. Morality, no doubt, always speaks in the imperative, and we may think that the grammar of a. timeless world would have no use for this mood; but the moral will that has attained its end would not be thereby extinguished; it would pass into a higher form.

One difficulty in finding a place for ethical volition in the eternal world is that right always implies wrong, and philosophers of all schools except the Manichean are embarrassed by negative values. These, as we have said, are not confined to morality; the æsthetic faculty finds ugliness a very positive thing. But it is for the moralist that evil holds the largest place, and presents the most serious problems. Indeed, the problem of evil is mainly created by the demands of the ethical sense. Science passes no such judgments, and for religion the victory of good is already assured. Without

spending more time on a problem which by common consent is incapable of being completely solved, we may reflect that in such a world as ours there must be real tension, and that the difficulty of believing that some souls are lost and some divine purposes frustrated is not nearly so great for the theist as for those thinkers who believe that the life of God himself is involved in the cosmic process. It may well be that the pantheist is logically obliged to deny the existence of evil; for the theist there seems to be no such necessity. Evil is as real as good, in a world where souls are on their probation, and the conflict is something much more tragic than a long-distance race, in which all at last reach the goal in a state of healthy fatigue.

It remains to consider the closely-allied questions of the reality of the individual and of the immortality of the soul.

The religious and philosophical belief in immortality seems to be not historically continuous with primitive animism, but to have arisen from different sources. Primitive animism, however it began, asserts merely the survival in time of the disembodied spirit, whereas the more refined belief in immortality is supported by theories about the nature of soul-substance, which it declares to be intrinsically indiscerptible, or about the nature of God, who, being good, cannot be supposed to decree the breaking-up of the noblest of his creations.

In Plato the doctrine of a soul-substance, inherently immortal, is brought forward. The soul, he taught, is the real person; "it makes us what we are." The soul belongs to the invisible world of changeless reality; it was never born and will never die; the body is part of the unreal world of becoming, which is not the object of true knowledge. The soul, however, has an insecure footing in the spiritual world; it only "partakes" in the higher mode of existence, into which it can "ascend in heart and mind and therein continually dwell," as our collect has it. Thus the soul may be in heaven while the body is on earth, and this possibility is more prized both by Plato and Aristotle than any hope of a merely future life. The ancients considered it almost a truism that what-

ever comes into existence must pass out of it; it is only the highest part of our nature, which was not born with us, which can find itself at home in an eternal world. But Plato is unwilling to give up the hope of a more strictly personal survival; he wraps it up in myths, which means that he regarded the belief as an act of faith. Aristotle taught that the Active Reason survives death. One might infer that this is an impersonal immortality, as the Arabian Aristotelians of the Middle Ages taught; but we cannot tell whether Aristotle would have approved this development of his thought. must be admitted that Plato's proofs of immortality are not cogent, and that his strongest arguments point rather to the contemplation of the eternal ideas than to future states of existence. But he is strong in the truly religious basis of his faith, which cares little for rewards and punishments, holding with Spinoza that Beatitudo non est virtutis præmium sed ipsa virtus. Plotinus was to say the same: "If any man seeks in the good life anything beyond itself, it is not the good life that he is seeking." The substitution of a gross pleasure-andpain compensation doctrine for this noble faith has been punished, in Christian times, by a decay of the belief in human immortality. It has withered because its roots have been cut.

The same external conception of retribution has infected the Asiatic doctrine of Karma, which has its noble elements, and is even held by some western thinkers. According to this theory nothing survives death but the bare form of identity, and the liabilities which have been contracted in the past life. These liabilities have to be discharged; and apparently the individual who is reincarnated for the purpose believes that he discharges them in person, though since there is an entire discontinuity in consciousness, it is not easy to see how identity can be asserted. The conviction that all misdeeds must be strictly atoned for has no doubt an ethical value, and the unfortunate may console themselves by thinking that their sufferings have a redemptive power. The belief in heredity, especially in its unscientific form, which teaches that we injure

our children's characters by giving way to temptation, makes much the same appeal as the doctrine of Karma. There is also the prospect of at last attaining eternal rest in the bosom of the Eternal, which is as attractive to the eastern mind as it is repugnant to the active and adventurous western. But the crudity of the retribution, as pictured in popular views of metempsychosis, robs the doctrine of much of its nobler aspect.

The attacks made on the theory of a permanent and indiscerptible soul-substance seem to me to proceed from the materialistic associations of the word "substance" in modern times. A "substance," in this connection, means only a permanent unit as a subject of experience; the doctrine asserts nothing more than that the higher self belongs to the eternal world.

Nor is this the only instance in which we are often misled by words. The antithesis of "personal" and "impersonal" immortality must not be left unexamined. To speak of "an impersonal system of thought" seems to me to be nonsense. A person can only be defined as one who thinks; a God who thinks is not impersonal. When a man asks whether he will preserve his personality after death, or be taken back into "the Great All," what really disturbs him is the doubt whether what lives in the eternal world will be his soul, or a soul over which his ownership has lapsed. But what is the meaning of "my soul"? Who is the owner of this precious bit of property? We in Europe are so obsessed by the idea of proprietorship that we do not see the absurdity of such questions. We ought, however, at least to realize their unworthiness. Until we have put behind us all individual claims, until we have understood what Christ meant by being willing to lose our souls, we are not yet in a position to discuss the religious problem of immortality.

Nevertheless, I think we are right to protest against the doctrine of "absorption in the Absolute." Nothing can shake our conviction that we exist as persons, and that our existence as persons has a real value. A personality dissolved into its component elements, if it has component elements, would lose

the value which we believe that its Creator recognizes in it, and we believe that no real values are ever extinguished. The difficulty is that our personalities seem to belong to the world of becoming; and the notion of a newly-created being becoming immortal is as difficult as that of a string which has only one end. The notion that immortality consists in an endless succession of moments, beginning at a certain point of time and never terminating, is surely as untenable as the Greeks held it to be. The notion of admission into a state of timeless existence is less difficult. The medieval German mystics used to say in ecstasy, "Ich bin entworden," which meant much the same as the welcome given in the next world to the Orphic saint: "Happy and blessed one, thou shalt be a god instead of a mortal." The difficulty is much reduced, though not removed, if we banish the notion of survival in time, and picture the beatified soul as raised to a higher plane of being. We need not then trouble ourselves with the question whether the population of the world of spirits is capable of indefinite increase. What I think we have a right to assert is that in so far as our personal life has a value in God's sight, its distinctness is preserved, though we are glad to reflect that in heaven there are no more separations between spirits who are akin to each other.

But even so, I doubt whether we ought to lay stress on what Höffding calls the "conservation of values" in eternity. Conservation is a word which belongs to the time-series. Values are constantly flowing forth from an inexhaustible source; we need not think of them being stored up. In all these discussions, phrases and ideas which belong only to the time-succession keep on intruding into our attempts to picture the conditions of eternal existence.

Where our treasure is, there will our hearts be also. Our true personality has for its content the eternal values, and this personality, we may say paradoxically, is not ours to start with. Our place in the eternal order has to be striven for and won. There may be, as some philosophers and mystics have believed, an impeccable and quasi-divine element in each soul,

which takes no part in the misdeeds of the empirical "person"; if so, our salvation consists in "uniting ourselves with the unchangeable and abiding, that the soul also may abide unchangeable." These are the words of Spinoza, whose ethics are based on the belief in "an eternal part of ourselves," to which the whole character should be made to conform.

This is, I think, the foundation of the religious belief in immortality. Very much of the current discussions on the subject betrays a frame of mind which is anything rather than religious. It appeals to wilful and selfish hopes which carry with them no guarantee that they will be gratified. In proportion as the hope of eternal life is displaced by a mere desire for survival in time, we may be sure that the less worthy motives predominate over the religious aspiration. The claim for even-handed justice at God's hands, natural as it is, proves that the necessary act of renunciation, which opens the door to a true faith in immortality, has not been made. It is a hard saying, but we do not know that distributive justice will ever be rendered. The great heroes have never demanded justice for themselves, and have certainly not received it. We cannot remember too often Spinoza's famous words about the reward of virtue, quoted above.

The philosophical arguments for eternal life are very much stronger than those for survival in time, and we need not regret that it is so. The Asiatic, as we have seen, does not even wish to survive, and a European of high character, if he wishes it, hopes mainly that a further chance may be given him of perfecting his personality, a purpose for which he may think that a single human life is inadequate. Some have argued that this hope is so reasonable that a good God could not refuse it. Many add that the wicked must be subjected to penitential discipline, in order that at the last all may come to the knowledge of God and win salvation. This is an amiable wish, which has been fortified by the horrible pictures which Christian orthodoxy, following here as in many other ways the mythical teaching of the Orphics and Platonists,

has drawn of the fate of the lost. There is no reason to suppose that the wicked will be resuscitated with bodies to be tortured—that, as Origen banteringly suggests, teeth will be provided for the damned to gnash with. But on the other hand we have no right to assume that a second and third probation will be given to those who have lived one life on earth, still less that, however badly we use our opportunities here, all will come right for us in the end. There is much confusion of thought, and much flabby sentiment, about punishment. Punishment is essentially vindictive; reformatory treatment, however incidentally unpleasant, is not punishment at all. A religion without real fear is likely to be merely unfruitful emotion. It is at any rate not Christian. Nevertheless, to the genuinely religious mind, future rewards and punishments hold a very subordinate place.

The desire for survival is sometimes connected with a cowardly fear of death. Perhaps most of us are more afraid of dying than of being dead, and agree with the Frenchman who said, "Pour être mort, malheureusement il faut mourir." But there are some who shrink terribly from the thought of resigning "this pleasing anxious being." They could make their own the ignoble prayer of Maecenas, which has been preserved from oblivion by its craven sentiment:

Debilem facito manu, Debilem pede, coxa; Tuber adstrue gibberum, Lubricos quate dentes; Vita dum superest, bene est; Hanc mihi vel acuta Si sedeam cruce, sustinc.

But surely the desire to go on living anyhow is a very poor thing. Rather, like Lewis Nettleship, we must train ourselves to believe that "death does not count." The thought of it is, as Spinoza taught us, an unworthy preoccupation for a free man. Nature has done her best to sting us out of materialism by cruelly outraging our dignity and our tender feelings in the circumstances with which she has surrounded birth and death. We count it bad taste to think or speak of the genesis of human lives; and that which follows death is so

revolting that we must hide the visible relics of a beloved life out of our sight before decay's effacing fingers have set their mark upon them. This is either the work of a devil, or of a good God who wishes us, at such times, to look, not on the things seen, which are temporal, but at the things not seen, which are eternal.

It will be seen that I have gone back to the ancient idea of philosophy, as not merely an intellectual pursuit, but a kind of priesthood, requiring a consecration of the whole life to a quest of the Holy Grail. It may be objected that this is to undervalue the exceptional intellectual gifts which are required in the metaphysician; that religious or ethical prejudices have more often injured a philosophical system than helped it; and that the great philosophers in history, though for the most part men of high character, have not all been saints or ascetics. But I am far from denying that great gifts are necessary in metaphysical speculation. And I am equally far from desiring that a philosopher should start with prejudices, either religious or moral; I only desire that he should start with an exalted faith, and that he should follow the gleam in the expectation of finding something better than a neat logical synthesis. And thirdly, I do not deny that a very unspiritual man might write a good book on philosophy. A physician may prescribe successfully for a disease of which he is himself dying; a priest may preach eloquently to others, though he is himself a castaway; and an able man may master a speculative system in which he has no vital interest. But the leaders of philosophy have been, on the whole, something more than respectable citizens. Some of them have been prophets and seers; and those who have lived the sheltered life of university professors have made a living sacrifice of their intellects to a noble study. It is, I think, a beneficent law of the spiritual life that really disinterested specialization does not narrow or warp the mind and character as we might have expected. Any devotion to the cause of truth ennobles the whole man. I do not think that the biographies of great philosophers can be used to refute the ancient opinion that the call to philosophy is a call to a consecrated life.

Quid caelo dabimus? Quantum est, quo veneat omne? Impendendus homo est, deus esse ut possit in ipso.

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HOW OUR MINDS MAY GO BEYOND THEMSELVES IN THEIR KNOWING

By JOHN LAIRD

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BIOGRAPHICAL

I BEGAN the study of philosophy in the year 1905, during my second session at Edinburgh University. From the first, I think, I found the subject more fascinating than any other, and I have continued to occupy myself with it ever since.

In my view, this interest is the most natural thing in the world. Philosophy is so attractive a lodestone that I do not see how anyone can escape from it. Perhaps, however, I had less chance of escaping than some others have, on account of the circumstances of my upbringing. The Scottish clergy, as everyone knows, have always held scholarship in the highest esteem: and I was the son, and the grandson, and the great-grandson of the manse. From my earliest youth, indeed, I had been led to believe that learning is precious and untarnishable, second only to piety, and very much easier to achieve. For the rest, I was country-bred, and therefore, perhaps, more meditative than many. I had books to read, and the name of philosophy may have appealed to my sentiment from an accident of space. I was born in Kincardineshire, in the parish next to Reid's birthplace, and I noted the fact in my dreams.

It would be rash of me, and perhaps worse, to try to explain in a phrase or two what I took to be the distinctive quality of the curriculum at Edinburgh, but the dominant note which seems to resound in my memory is a certain ideal of fine discernment and of scholarly accuracy in the interpretation of the greatest philosophers. We were shown, I believe, how to look for the germs as well as for the ripening of profound ideas, and yet to avoid the grosser bondage of time; for we listened, as it were, to a dialogue still in progress, and possessing a certain ubiquity in the centuries. For myself I would gladly have more of this temper.

From Edinburgh I went to Cambridge and began all over again. I changed my point of view, I suppose, but I cannot tell how much of the change was due to Cambridge, how much to an alteration in myself. In any case, I do not wish to suggest a contrast. For my own peculiar, however, I came to prefer dialectic to history, more special to broader enquiries, a grain of proof to a bushel of

sweeping suggestion; and I did my best to be as candid as I could. It would have been singular, indeed, if I had not. Cambridge in these days was a very hopeful community, and magnificently confident in the efficacy of hard thinking, but we followed an argument in the spirit of adventure, and not with the object of making for port. In our view, nothing was final but the rules of sound navigation; and everyone seemed ready to be argued out of his fundamental convictions of the term before.

I have dwelt upon these undergraduate days because I have tried to carry the spirit of this early discipline with me in all my subsequent reflections upon philosophical questions, and because I cannot think of any other influence at all comparable to it. Cumulatively, I hope, I have learnt more from the teaching of philosophy than from my apprenticeship; but this I take to be the continuation of a process already begun, although revised and sharpened in these years of active discussion with my students and my colleagues in St. Andrews, Nova Scotia, and Northern Ireland. Philosophically speaking, too, I count myself fortunate in belonging to an age in which philosophy is very much alive, and in which anyone who attempts to put his ideas into print is sure of searching and illuminating criticism from a host of competent quarters. I should like to think of myself, however, as one who had attempted persistently to make use of the exceptional opportunities with which he began.

I am aware, of course, that professional philosophers are suspect in certain quarters, and I should be the last to deny that philosophy is too big a thing for any school; or that every profession has its professional fences, although philosophy should have none. I cannot think, however, that anyone is entitled to infer from these truisms that philosophy, as it is understood in the schools, is wholly or principally an academic game whose rules are made by the dons. I know a great many dons, and I can think of none to whom this censure applies. Indeed, I think it unreasonable to expect proficiency in these or in any other subjects without a prolonged and special training, or to suppose that this training is the worse because those who are responsible for it give their lives to the work. And there is nowhere, I think, where thought is freer than in our universities, less strained or muscle-bound, more sensible of the spaciousness that exactitude brings.

That is why I have made this account of myself impenitently academic, yielding to the temptation of describing myself as I should like myself to be.

I shall try, now, to present a thesis:

HOW OUR MINDS MAY GO BEYOND THEM-SELVES IN THEIR KNOWING

THE theory of knowledge, I think, is only a department of philosophy, and it is not the most considerable department. Nothing but a theory of knowledge, however, could conceivably vindicate this assertion, and the circumstance accounts for the form of my contentions, as well as for the scope of them.

I propose, then, to give a short abstract chronicle of certain opinions which I hold concerning the mind, its office in knowing, and the things with which it has to do. I count myself a realist in these matters, but I do not think I am a very new one, and I do not covet the label. Indeed, I am accustomed to proceed in a very old-fangled way, and to ask (as I conceive) the very same questions as Locke or Hume. With Locke I wish to consider "the discerning faculties of a man as they are employed about the objects which they have to do with," and I am anxious to use what Hume called the "experimental method"—a method, that is to say, which is critical and descriptive, but avoids conjecture so far as it may.

It is arguable, I know, that time has antiquated these antiquities and has shown them to be naked and perverse. Is Dorset Court to be preferred to Königsberg? Shall Nuremberg give place to La Flèche in Anjou? These are pertinent questions, certainly, and I hope to return to them in the sequel. Meanwhile, I beg leave to continue.

Locke's account of "ideas," to be sure, is a thorny topic, very troublesome in its exegesis. If his "ideas" had been only "the immediate objects of the understanding when a man thinks," no one would have thought him an innovator or a

contentious person. In fact, however, he also maintained that "ideas" are "phantasms" or "species"—apparitions or visibilities, that is to say, at least in their first intention. This is half way to Hume's assertion that it is "pretty obvious of itself that nothing is ever really present with the mind but its perceptions," and Hume, quite plainly, has said something disputable, if not subversive, when he goes on to explain that "we never really advance a step beyond ourselves, nor can conceive any kind of existence but those perceptions which have appear'd in that narrow compass."

What I wish to maintain, on the contrary, is that, in point of simple description, we always advance a step beyond ourselves (except in the case of introspection) whenever we are aware of anything, and that, although we may sometimes encounter mere apparitions, it is not at all necessary that we should. In pursuing this argument I shall begin, in the received fashion, with an account of the senses and of memory.

Locke and Hume, as I think, were indisputably right when they denied that the philosophy of sense acquaintance can be borrowed from physics or physiology. Any knowledge we attain concerning any physical object is derived from sense observation, and the hand or the eye or any other organ of sense is just as physical an object as a mountain or an archipelago. They were right, too, when they said that sensory phenomena were objects. We look at them, not with them; and Locke, I think, was right when he said that these objects were objects of the understanding, Hume wrong when he took them to be objects of nothing at all. They are objects of the understanding, however, only in the sense that they come before it; and therefore we step beyond the process of apprehending whenever we observe them. This step, furthermore, is so decisive that it leaves us without the smallest ground for supposing that these objects, however direct and immediate they may be, have any similitude whatsoever to the process which apprehends them. Quite simply, they are objects which the mind apprehends, and they need not be mental, on this account, or have any mental property.

The point is cardinal, not so much for what it determines, as for what it leaves open. It cannot determine, one way or the other, whether this object is public or private, an abiding thing or a momentary phantasma, an isolated unit or a glowing spark in a tenebrous, looming immensity. It does not preclude us, even, from believing that sensory fact may be mental for some other reason than the mere fact that it is apprehended. In a word, it is permissive, leaving the objects to declare themselves as they list. To quote Hume against himself: "As to the independency of our perceptions on ourselves, this can never be an object of the senses, but any opinion we form concerning it must be deriv'd from experience and observation."

Experience and observation, it is plain, have to walk very delicately here, and I have no space for more than the most general of reflexions. "Philosophy," according to Hume, "informs us that every thing, which appears to the mind, is nothing but a perception, and is interrupted, and dependent on the mind, whereas the vulgar confound perceptions and objects, and attribute a distinct continu'd existence to the very things they feel or see." This confusion, I believe, is the philosopher's, not the mob's. "That table, which just now appears to me, is only a perception, and all its qualities are qualities of a perception." Our philosopher, surely, is quite precisely wrong. The table, indeed, appears to me "just now," but it is not therefore a mere appearance, still less an appearance which only exists "just now"; and its qualities may or may not be qualities of the "perception." Certainly we believe the table to be square when we see it to be so; but if our "perceptions" fluctuate (as they always do when we gaze at anything) we do not, therefore, perceive a fluctuating table.

These "perceptions," to be brief, are glimpses of the table, and the table itself is not a glimpse. It is that which reveals itself (to us, for the most part, discontinuously) in certain limited phases and features, but we deceive ourselves causelessly if we ascribe the limitations or the interruptions in our selecting to the continuing entities from which these selections are made. Philosophers have strangely misconceived this palpable, governing

consideration, and the vulgar have not; but it is the philosophers (and they only) who have addressed themselves seriously to the still more fundamental problem of determining which of the phases that we encounter in sense are, in fact, compossible features of the same continuing thing. It is possible, I believe, to save all the phases which our senses select, except the illusory ones (and I do not see why our senses should be considered infallible); but this possibility, in its turn, is due to the liberating insight into space, and time, and matter, which philosophy has achieved so recently, and the spur to this achievement was the tardy recognition on the part of the physical sciences that physics itself was bound to answer those very questions which psychologists and philosophers had continued to ask with such unwavering persistence.

I believe, then, that we really do perceive tables and trees and other such things. Quite manifestly, however, we do not perceive them in isolation. This table, with its relatively persisting contour and its reliable domestic uses, is a partner with the floor, and the air, and the rest of the world. Perception. to be sure, does not acquaint us with a worldful of things, directly and all at once. On the contrary, if the metonymy be pardoned, it confines us to an eveful or an earful of their phases. Nevertheless, anything that we perceive is perceived within a horizon. Its grosser components, its contiguous partners, its immediate surroundings and connexions, are given along with it, not always, indeed, with the same clearness of outline (since the fringe of the horizon, as Grote remarked, is "a mist and not a crowd''), but given notwithstanding. The governing consideration that entered before enters here also. This sensory expanse with its faint penumbra, small though it be in comparison with the countenance of all Nature, and calling for enlargement, refining and endless interpretation, is yet a selection within Nature, and reveals itself to be so when experience and observation set about their proper work. What is more, molecules and ions, in the roots of them, are extracted from perceptible Nature. not foisted upon it, or constrained to borrow their credentials from an imperceptible dominion. Nature, in short, fulfils and

does not supplant what our senses permit us to encounter. Things do not cease to be things because they belong to a world. They may not surrender themselves; and we, for our part, may not surrender what we find in them.

The evidence for this continuance of things is due, of course, to the memory as much as to the senses. Very often it seems to be held that memory is chained to the present, although it contains (unaccountably) an unverifiable reference to the past. I reverse this reasoning. By universal admission the "specious" (or directly apprehensible) present is a stretch, not an instant, of passage, and within this stretch part is earlier and part later. Consequently, at some instant in every specious present, we directly experience something which occurred before that instant. Our direct acquaintance with former existence, therefore, so far from being impossible, occurs as often as the specious present Certainly this "primary" memory (as it is called) has, in our case, a very brief span. Even when the attention is firmly engaged, we cannot usually grasp more than a fitful endurance in a single glance. In exceptional cases, however, the clock may show that our specious present is not so very short, and there is no contradiction in supposing that God's specious present might compass the entire history of his universe. If so, the creeping passage of æons would literally be his eternal now, but the order of earlier and later within it would not be altered by a hair's breadth either relatively or absolutely.

These possibilities, perhaps, have only a speculative interest for mankind. The human now is not eternal, and much of a man's acquaintance with former things in their former condition is "secondary," or interrupted. Secondary memory, however, is only a vista of broken time where peaks take the place of a plain. It is not a new way of remembering, essentially distinct from primary. Therefore it, too, is direct acquaintance with the past; for distance in time, like distance in space, leaves room for vision.

The objects of memory, to speak in other words, are former events, not contemporary "memory images," and it may be noted in passing that the whole theory of knowledge has been

fruitlessly perplexed by misconceiving the date and the place of images, as well as by confounding imagery with conception. Images proper, the images of a dreamer or day-dreamer, while they are spatial and temporal, are not either here or there, now or then. As Coleridge said, they are "emancipated from the order of time and space." To accept them otherwise is to embrace illusion. Certainly images really are imaged, but that is not to the point, and it is easy to exaggerate the importance of their office in other respects. Imageless apprehension, we are often told, is a psychological nullity, and it is true that images usually accompany thinking, even if unobtrusively. When they do so, however, they are only illustrations at the best. They are not the intent, of our cogitations, and they help or encumber our thinking precisely as other illustrations do. To think of justice is not to have an image of scales.

I have expressed this account of the senses in terms of judgment; but perceiving is not judging. Hume's analysis gapes visibly in this matter. While he distinguishes perception from certain inferences, and inquires into the sentiment of conviction, he maintains that judgment "taken in a proper light" is only a mode of simple conception. Eager to dispel the mirage of abstract imagery, he leaves himself without the rudiments of a theory of logical predicates. And every predicate is a universal. Some predicates, it is true, are less determinate than others. Colour is less determinate than red, red than this shade of red. Yet this shade of red is universal, too. Conceivably, indeed, it might be found only once in Nature, or never at all, but it has an occumenical potency of the blood. Being a predicate, it is fitted to qualify an infinity of substantives.

The simplest judgment of sense—"this is red" or "this is surrounded by green"—contains a universal constituent, either adjectival or relational. What we perceive, however, is always and simply particular. Perception and judgments of perception, therefore, do not coincide, but only correspond; yet there is no occasion to infer that this correspondence is between "thought" and "things." It is a correspondence between thought-selections and sense-selections. We perceive brown

things and overlapping things. Of these same things we judge that they are brown, or that there is a relation of enclosure between them. There is no more and no less of mentality in the one case than in the other. There is only a different exercise of the mind faced with a different dimension in the things. This holds of all the characteristics and relationships pertaining to these objects. Propositions (or that which is judged) constrain and confront us like any other objects. With judicial eyes, we look at them, not with them, and they are found, not made. It is utterance—the gesture that expresses the proposition—that is our product and our making.

In perception, then, we discern the phases and the setting of perceptible things; in judgments of perception we discern their relations and their character. This capacity of our judging extends to all such properties, how general soever they may be, and even when they are categories and à priori. The "forms of thought," indeed, are the charts of thought's province, and therefore include the most pervasive properties of perceptible things. Judgment, however, is emancipated from many of the limitations of percipience. In a series of connected judgments (in other words, by inference) we are able to pursue these characters and connexions far beyond the domicile where first we encounter them. What is more, we are able to consider them at second remove—apart, that is to say, from any particular application, and, perhaps, indeed, quite alone.

This raises a problem. Predicates like "red," or relations like "enclosure," would seem, literally taken, to be meaningless except when applied to perceptible things. Predicates like "numerable," however, or the relation of "otherness" seem to have no peculiar connexion with perceptible existence. They apply to any thinkable entity, and although the adjective "numerical," being but an adjective, must certainly apply to something, it does not follow that the substantive "number" is but the child and vassal of this adjective. "Numbers" indeed may be primary substantives de-substantiated into adjectives, not secondarily substantiated from the same. I take this view to be the true one. Neither logic nor pure mathematics

(its corollary) seems to need the smallest reference to perceptible characters in order to ensure its validity, and although both may be applied to perceptible fact, there is no need to impugn their proper autonomy on this account. It may be doubted, indeed, whether anyone would dream of doing so if he did not tacitly assume that all existence is perceptible existence. This concealed premiss, however, seems a piece of parochial effrontery. Non sufficit orbis. As Spinoza said, there may be many attributes besides thought and extension. There may also be legions of things which we do not sense, or fancy, or conceive.

Nevertheless, if these hidden things were made plain, they would show a logical structure. Lacking the appropriate empirical instruction, we may not know, indeed, what their character is, or how "the same" and "the other" commingle within them, yet we know that these must enter and enter consistently. Intellect, in a word—our human intellect—has no inherent ineptitude. It is we who are frail, and not our knowledge, we who are inadvertent and desponding; and however sincerely we may long for some profounder, more synoptic, more delectable dimension of knowing, there is neither sense nor piety in forgetting our responsibilities through a palsy of timid wondering. There is more of reverence in acceptance than in amazement, and it is as foolish to ask how knowing can know, as to inquire how being is made. It might be otherwise, indeed, if we had to match our stature with the universe or compress the firmament within the domes of our skulls; but we are not asked to attempt these absurdities.

Accepting knowledge, then, we accept something which is insatiable (in principle) and invincible, something which is not content to ask for bread carefully prepared and made conformable to it, but is itself conformable to all things, even to the stones of earth and to the choir of heaven. In this (as I think) the Critical Philosophy was not critical enough. If we could visit the great ones in Valhalla, we should all, I suppose, seek Kant first among the moderns, and present our humble duty to the little, peerless, spieszbürgerlich iconcolast from Königsberg; yet we should honour him chiefly for the incomparable fertility

of his genius, and most lesser philosophers, so far as I know, are eager to indicate their dissent from much that he says. propose, then (briefly), to follow this prevalent fashion. The senses, I have maintained, so far from receiving a formless manifold, are directly acquainted with events in the physical world, and their weakness, great as it is, does not prevent them from tracing the most salient partnerships and continuities within the world. Therefore perception, apart from judgment, is not blind. It is not science, however, and natural science, as Kant maintained, needs the united operation of thought and sense. This union, however, always reveals properties and connexions which belong to Nature herself. It is not an imported synthesis, and it is found as clearly in the simplest judgments of perception as in the most general propositions of physics. Mind is not a mesh, or a mantle, or an atmosphere which encompasses all that is knowable. To suppose so is to carry the fallacy of representative perception into the province of judgment and inference. What Kant called synthesis, in a word, is really the connexion of differents; and synthesis à priori consists of the most general connexions which belong to all being as such. Through his recognition of this fundamental verity, in spite of the form in which he stated it. Kant began to bridge the lacunæ of Leibniz's logic and overcame the forlorn and affrighting isolation of Hume's fundamental plaint that "the mind never perceives any real connexion among distinct existences." This verity, however, is not confined to the science of physical Nature, and it need not borrow its meaning or its use from the forms of intuition. There is no physical science, it is true, of God, or of the soul, or of logic itself, but there may be knowledge notwithstanding-knowledge that is neither vain nor void.

There is a striking analogy between Hume's attitude towards Locke, and Hegel's towards Kant. The "new scene of thought" which "transported Hume beyond measure" when he was a lad of eighteen, and led him (after some years of exhausting emotions) to drive an eager, immortal quill from those low coteaux by that Angevin plain, was his burning conviction that

"ideas and impressions" were the sole realities in the light of the new philosophy. Bathing in the stream of presentations, he found, as he believed, that the scales had fallen from his eyes. The rest were not even shadows. After the same fashion (despite most obvious differences) Hegel immersed himself in the Notion and its rhythm. There was nothing beyond or outside it. It had laid itself up in heaven, and begotten itself and the world. The objects of thought, as we call them, are its wards and chattels—"reduplications, inspissations and crassations," as a commentator has said. The Notion is not an instrument, like teeth or jaws, biting into some other than itself. It is the sower and the reaper of its own manifestations, and the senses are its ideographs. In the language of our own days, all the objects of thought are thoughts themselves-ideal contents which are self-developing and self-maintaining. know them, therefore, is to become part of their self-knowing; and it is no matter, apparently, if this self-deployment is unchanging "in the end," or if this self-maintenance, being timeless. cannot properly be said to endure.

I am anxious to defend the contrary opinion. Things (as I cannot but believe) need not be thoughts at all. Indeed, they never are, unless they are minds. If thought, as Hegel says, is "the universal substance of what is spiritual," it is therefore not (as he also says) "the constitutive substance of external things," or of timeless ones either. This is the thunder of equivocation. There should be no question of my activity becoming universal activity, of the way in which I, a puny creature of passage, may be caught up into eternity, or, conversely, of the manner in which infinity can overwhelm and annul the original sin of my finitude. My thinking is always a part of myself, a finite part of a finite economy; it is always a process and brief. Yet it may be directed towards that which is timeless, universal and infinite, without the palest reflection of inconsistency. There is neither identity, indeed, nor similitude between my mental processes and that with which they may be concerned; and so it is useless to call upon Absolute Mentality to deliver the finite mind from an imaginary sickness.

It would be otherwise, certainly, if our acquaintance with things were a species of private suffering; for then there would at least be a magnificent excuse for acknowledging this Leviathan of the Notion who beholdeth all high things, and is a king over all the children of pride. In fact, however, there is no such implication, and Leviathan himself would be humbled, not exalted, if he beheld nothing but his own image.

I must try, now, to explain what I mean by the finite mind.

It is a fact of biology, as much and as little mysterious as any other biological happening, that vitality tends to become sensitive in certain species, and that this sensitivity is useful on the whole. On the other hand, in homo sapiens at any rate, these serviceable mental functions forget their servitude and assume the mastery. Life is pursued for their sakes, not they for life's, and their direct biological utility is often of little moment. Those of us, therefore, who are concerned with mind rather than with life, with l'esprit rather than with l'âme, cannot be content with biological generalities. Granting that our minds, seen from one important angle, are the tools and the armour of a breathing body, their intrinsic character still remains to be examined, and the scope of their excellence to be discussed. They are servile, indeed, to their nativities. They tremble at a vapour or a drop of fluid. They are the jest, and the riddle of the world as well as its glory. Yet it is neither inconceivable, nor even, perhaps, unlikely, that they are capable of discarnate existence, and if this be life of a kind, the study of it, to say the least, is an odd sort of biology.

Turning, then, to the mind itself, we find in it a troop and throng of experiences, each with its distinctive character—pains and pleasures, hopes and fears, sentiments, resolves, beliefs and questionings. The evidence here is derived from introspection, and from inferences based on it. It is necessary, however, to explain and to defend this statement, since it has been ardently and persistently disputed. Indeed, there is little agreement or none between Locke's description of the "notice which the mind takes of its own operations," and, let us say,

Mr. Alexander's account of "enjoyment," or of Malebranche's shy and divided witness, the sentiment intérieur.

For reasons which have already appeared, I regard sensations and images as beyond the jurisdiction of introspection. They do not seem to me to be mental; and this contention, if it is sound, also applies to organic or internal sensa. The aching contour of a swollen joint seems to me as physical as its heat, and its heat as little mental as the warmth of a stove. Introspection, then, is not literally an "internal sense," but as Locke says, "though it be not sense, yet it is very like it," for it is observation of those mental events which we call passions, resolves, and cogitations—an inspection of their being, not an inference concerning them.

It is here that philosophers diverge, and in the most radical fashion. According to certain of them, we know what we are because we are what we are; according to others we never know what we are, for precisely the same reason. The first of these views seems manifestly false—a confusion in itself and contrary to the plainest experience. On the other hand, the alleged impossibility of self-observation or self-acquaintance seems equally mistaken. Certainly, our cognitive processes, to choose the most difficult case, are, in their usual exercise, processes with which (not at which) we look; and none of them, perhaps, can look at itself. It does not follow, however, that another (introspective) look cannot be directed towards this process of looking, or that both these processes, the original glance and the introspective, do not belong to one and the same mind. Even "awareness of awareness," then, is not impossible, and this conclusion is consoling, since if anything seems to occur. introspection does. What is there except observation to acquaint us with the difference between pleasure and pain, or between belief and repugnance? Have we to infer their existence and their differences, like some dark unnoticeable planet, from the perturbations of something else? Is the whole of our mentality an unverifiable conjecture?

In short, the stream of our consciousness can be observed; and it can be observed, to all seeming, with very passable

accuracy in its principal outlines. Keeping to observation, then, we find that the stream flows in a personal form. These hopes, and desires, and the rest, are neither random nor isolable, but combine in their existence and are someone's consciousness. This continuing, personal self, it is true, like other continuing things, cannot be observed altogether, but only in patches; yet the patches reveal its pattern and its texture. This mode of observing, indeed, like the others, seems to convey all that can properly be meant by substantial existence. A substance, I believe, is always, quite simply, a connected, persisting unity of existent processes, each requiring and supporting the others; and the personal unity of mental processes is just the substance which we call the "I." It is Peter's hopes that have been deferred if Peter's heart is sick. Those who maintain, however, that wherever such a union occurs there is always a somewhat to support and sustain it, may be allowed to involve themselves in the same logical compulsion when they think of the self.

It may be objected, firstly, that this personal unity of experiences succumbs to serious analysis; secondly, that the flow of consciousness is in fact interrupted, and so that its continuity is illusory.

The first objection would be decisive if it were true, but it does not seem to be so. It is plausible, certainly, to ask in derision which self persists from the cradle to the coffin, whether Saul the persecutor is really the same person as Paul the missionary, whether fugues, delirium, petit mal and "dissociated personality" do not show that the self, after all, is only a dubious legal convention. If the self changes, however, these arguments prove nothing at all. A self that changes must surely become different, and if the difference, in carefully selected or even in other instances, can be shown to be astonishingly abrupt, there is more confusion than logic in attempting to exploit the circumstance. "Dissociated personality" itself (if it were beyond all question) would prove, at the most, that several selves may be connected with the same body; and this, if it is singular and perhaps disquieting, is at any rate a different contention.

It is usual to meet the second objection by an appeal to the

"unconscious"—that roomy and obliging receptacle which swarms with so many denizens. From these convenient rhapsodies, clearness may presently emerge. In default of this aid, however, and even on Berkeley's extreme hypothesis that "in sleep and trances the soul exists not," the objection is still insufficient. If Peter and Paul asleep are nothing in earth or heaven, Peter awake is Peter, and Paul is Paul. When they exist, each is an "I" whose phases conjointly are the "I" and severally are phases of the "I."

This account of the self comes very near to Locke's, I think, despite all the differences upon the surface. Locke held, indeed, that personality is an ethical or forensic idea; that it is terminated by conscious memory since no one is accountable unless he can consider (or remember) himself as himself; and that the complex idea of personality is a "mixed mode" of an unknown substratum or set of substrata. We should say instead, I believe, that the question is not one of substrata but of concreta substance being a descriptive term and neither a metempirical "support" nor a logical essence; that this concretum is just the ego; and that all forensic ideas apply to it. Memory, I think, reveals our identity but does not constitute it, except in the sense that every self must be able to carry along with it some fundamental appreciation of its own continuance. This may be sub-conscious at times; but I doubt if it is ever infraconscious.

The possibility of memory, certainly, is closely connected with accountability, and Locke may have been right when he said that "in the Great Day, it may be reasonable to think, no one shall be made to answer for what he knows nothing of." Perhaps, however, it may be still more reasonable to hope that the Great Day is not a Day of Judgment at all.

It is time for me to make an end of this chronicle, and I shall end, as I began, with a statement of the contrast between these opinions and a pregnant sentence of Hume's. "There is no question of importance," Hume maintained, "whose decision is not comprized in the science of man; and there is none which can be decided with any certainty before we become acquainted

with that science." The misconceptions contained in the first part of this statement, I think, give a certain limited validity to the second part. The mind, to begin its work, must be saved from the clamour of importunate friends. This is my excuse, indeed, for attempting this guardian's work and for confining so much of my attention to so small a department of philosophy as the theory of knowledge.

Certainly there is no folly more ludicrous than the folly of appointing oneself the custodian of something that is already and amply secure. Nearly everyone admits that "my representations" are not simply mine, but beyond this there is no agreement among the custodians. Some speak of a pre-established harmony, or of a late relenting dissonance; others explain that Thought which thinketh in me shuts things in with themselves. On all these theories, however, everything is known sub specie mentis; and on the boldest of them nothing exists save in its passage or repose in Mind. I have attempted, on the contrary, to explain and to defend the privilege of human and of all cognoscitive nature to explore all things, not merely itself; and although my performance has limped, its purpose needs no apology, and can do our souls no hurt. In renouncing pretensions which should never have been made the mind cannot abate one scruple of its excellence.

PRINCIPAL PUBLICATIONS

Problems of the Self. (Macmillan.) 1917.

A Study in Realism. (Cambridge University Press.) 1920.

CONSTRUCTIVE PHILOSOPHY

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CONSTRUCTIVE PHILOSOPHY

My philosophy, such as it is, owes most. I believe, to the teaching of Edward Caird. But I was always a somewhat recalcitrant pupil, in constant rebellion against what seemed to me his over-confident optimism. His disciple and successor, Sir Henry Jones, to whom also I owed a good deal, was even more remarkable than his master for the fervour of his con-Probably my own defect lies on the opposite side. Though I have never been altogether sceptical or pessimistic, yet I have always had a feeling that there were lions in my path—fundamental difficulties that have often seemed insuperable. Like Burke. I may say that nitor in adversum has been my motto; and the path of my advance is already strewn with wreckage. Hence I cannot regard any of my writings as containing more than the least inadequate solutions of the great problems with which they deal that I was able to discover at the time when they were produced. Yet I have never been without the hope of finding more adequate solutions, and . in what follows I intend to indicate the directions in which I am looking for further light. I am only feeling my way as vet, and am very conscious that I have not so far succeeded in expressing even the truths that I think I see in a manner that can be regarded as clear and convincing. More and more, however. I find myself coming into accord with Plato (especially as interpreted by Professor Burnet); and in most of my more recent writings I have been trying to give a modern setting to some of the leading ideas of his philosophy.

My first publication was An Introduction to Social Philosophy. It came out in 1890, at a time when the problems of social reform had reached a somewhat acute stage; and it was an

indication that one of my chief aims was to try to contribute something, if not to the solution of these problems, at least towards the orderly and reasoned exposition of them. I was aware then, however, and subsequent reflection has more and more convinced me, that it is impossible to deal satisfactorily with these problems without a clear conception of the essential nature and aims of human life; and that such a conception cannot be attained without some real insight into the general structure of the universe that we inhabit. Accordingly I passed as speedily as I could from Social Philosophy to Ethics, and then (much more slowly) from that to Metaphysics. The views at which I had gradually arrived some seven or eight years ago are most fully set forth in my Elements of Constructive Philosophy; and in the present short abstract it is to that book that I intend chiefly, though not exclusively, to refer. It seems convenient to arrange the material under five headings-Theory of Knowledge, Theory of Reality, Theory of Conduct, Social Philosophy, and Philosophy of Religion.

I. Theory of Knowledge.—With regard to this, the view that I take is one that has been very largely affected by the study of Meinong's remarkable book Ueber Annahmen. It may be best characterized as critical realism. By this I do not understand the doctrine that the objects that any individual apprehends exist, in the form in which he apprehends them, in some region that is completely independent of consciousness. What I mean is rather that to say that such objects are "in the mind" is a statement that can only be accepted in the sense that the mind really apprehends them; and that the question to what region they are properly to be referred awaits further consideration. They are at least not simply creations of the mind by which they are apprehended; and the conditions by which their origin, continuance and

In referring specially to Meinong, I do not mean to undervalue the help that I have derived from the writings of Alexander, Moore, Russell, Lloyd Morgan and others; nor do I mean to imply that what these writers have emphasized had been altogether ignored by those who are commonly described as idealists.

disappearance are determined are not prima facie mental conditions. They arise, for the most part, within a spatio-temporal system, which may or may not be an independent four-dimensional physical universe, but is at least not simply the world of our own limited conscious experience; nor is it necessarily referred to some conscious experience other than our own. To what it is properly to be referred, is not a question that can be decided by purely psychological or epistemological considerations.

That this is a very mild form of realism is evident from the fact that even so extreme a form of idealism as that of Berkeley, Malebranche, or Leibniz can hardly be said to be necessarily excluded by it. For even Berkeley recognized that the world that we apprehend is somehow communicated to us in an orderly way by God, and consequently does not simply exist either in God's mind or in ours, but in some medium of intercommunication, which would seem to have at least temporal conditions of its own, not simply dependent on any of the minds between which the communication is effected. Similarly, when Malebranche maintains that we "see all things in God," he appears to mean that we see all things in a comprehensive system which is not simply the system of our own consciousness, and is also not simply the system of a divine consciousness in any sense in which that consciousness can be separated from our own, but rather is a system that is essentially accessible to both, and consequently distinguishable from both. And, when Leibniz maintains that our universe is "the best of all possible worlds," he implies that there is an objective system of possible worlds, out of which the divine mind has somehow to make a choice.

Thus, it hardly seems possible for any one to avoid being a realist in the sense that has been indicated. Every one has to recognize that there are extra-conscious conditions of our knowledge of objects; and indeed also that there are extra-conscious conditions (usually somewhat veiled by the use of the term "sub-conscious") in the conscious life of the individual subject himself. Even before the appearance of

Meinong's book, I had been led, in the teaching of Logic, to emphasize the objective significance of "Meaning"; and more recent discussions have confirmed me in this attitude, though I believe that some of the statements in my *Elements* with regard to it are in need of modification, or at least of amplification. Certainly the conception of meaning is very fundamental, both in psychology and in logic.

Its significance in psychology has been well brought out by Professor Stout in his Manual of Psychology,2 where the main stages in the "acquirement of meaning" are described and analysed. Psychologically, meanings may be said to be suggested; and the range of such suggestion is very wide, from such simple suggestions as that of a sweet taste by the sight of a lump of sugar to the elaborate suggestions that are called up by the song of a nightingale in Keats' magnificent Ode. Such meanings are primarily subjective, and may vary indefinitely with different minds. For logical purposes, on the other hand, meanings are, as far as possible, definitely fixed. The possibility of this depends upon the fact that what we call the real world has a character that, though variable, varies in definite ways that can be accurately described and communicated from one mind to another. It is, as Plato urged, the presence of universals in the world that is apprehended that enables us to give fixity to our meanings, and thus makes objective knowledge possible. It is this fact also that forms the basis for the constantly growing conviction that the world that we apprehend is an orderly system—a conviction that has become very firmly rooted in the modern mind through the application of mathematical methods to physical processes and the possibility of accurate forecasts that has in this way been established. In order to make the significance of this more apparent, reference must be made to the nature of judgment.

It is important to emphasize the objective reference in judg-

¹ See Elements, Book I, chap. x. Also article on "The New Realism and the Old Idealism" (Mind, July 1904).

Second edition, pp. 91-8.

ment and to distinguish this from the subjective process of judging or believing. A judgment, rightly understood, is the expression of some relation between the things that we apprehend (which, in scholastic phrase, may be "entities" or "quiddities"), and is at least intended to hold good for every thinking being. "This sugar is sweet" conveys one meaning; "this sugar is bitter" conveys another. If the reference is the same, both as regards the physical object and the conditions of sentiency, the truth of one of these would exclude the truth of the other. But they both express intelligible meanings, which any conscious being who understands the use of the words would be able to apprehend. One of them, however, may fit the facts, as the right key fits a lock; the other, in that case, will fail to fit. To say that the meaning corresponds to the fact is somewhat misleading. What is "meant" is the fact."

Belief is sometimes taken as synonymous with Judgment. But it seems better to say that belief is the subjective fact involved in the entertainment of a judgment by some thinking being.² The judgment, for instance, "this sugar is sweet," may be entertained by one mind and rejected by another; by a third it may be entertained in some qualified sense, as "this sugar is moderately sweet." The minds of thinking beings contain (explicitly or implicitly) extensive systems of such judgments, more or less firmly entertained; and these subjective systems may correspond more or less closely to the objective systems to which they are referred. It seems best to express this by saying that they may be more or less correct. In this way the correctness of a belief is distinguished

Elements, Book I, chap. ii.

Elements, Book I, chap. v. It must be confessed that it is difficult to express this distinction in English, because the word "judgment," by its very form, suggests the mental act of judging (i.e. believing). The German "Urtheil" is freer from this defect. 2+2=4 is a true judgment, when rightly understood: 2+2=5 is a false judgment; but my particular way of entertaining the former judgment may be very erroneous. The distinction that I have been trying to make still appears to me to be a sound one; but it requires much more explanation than it is possible to give in such an abstract as this.

from the truth of a judgment. Strictly taken, the judgment (when fully expressed) is either true or false; but it may be entertained by a particular mind in a form that is more or less correct. The study of judgment—i.e. of meaning—belongs to logic, that of belief to psychology; and it is confusing to mix up the two provinces.

When Logic is thus conceived as being concerned with the implications of objective meanings, its close affinity with mathematics becomes apparent—an affinity, however, that is in some danger of being exaggerated. The relation between the two subjects appears to be that, while Logic is concerned with the general problem of meaning and its implications, the various branches of mathematics are concerned with the detailed working out of the implications of particular modes of meaning. The exact significance of the results that are reached, as well as the validity of the processes that are adopted, have to be interpreted and tested by considerations that belong properly to logic.¹

We are now led to inquire how reality is to be conceived.

2. Theory of Reality.—The view to which I have been led on this subject may be characterized as that of critical realism or critical idealism indifferently. It is the doctrine that the extra-conscious reality to which our conscious experience refers has to be interpreted in terms of spirit, rather than in terms of matter. The grounds for this doctrine, as I have already indicated, are not simply psychological or epistemological, but are involved in the attempt to regard the objects of our experience as constituting a systematic order. It is possible, no doubt, to question whether they form such an order at all. As rational beings, however, we can hardly help seeking for an intelligible order in the world that we apprehend; and the considerable degree of success that the special sciences yield in the establishment of such an order encourages

^{**} Elements, Book I, chap. vi, especially pp. 104-5. Since that was written there has been much valuable work done on the borderland between logic and mathematics—notably in Dr. C. D. Broad's book on Scientific Thought. I still think, however, that the logical interpretation of mathematical process is in need of further consideration

us to hope that a complete order might ultimately be discovered. Now, it appears to be at least difficult to conceive of any intelligible order that should not have intelligence at its centre. How this basis for idealism differs from a more purely epistemological basis, may be illustrated by a reference to one of the earliest statements of the Neo-realist position by one of its ablest exponents. In an article in Mind 1 Dr. G. E. Moore urged that cups and saucers must be regarded as having some sort of existence independent of that of conscious spirits. With this, as already noted, we may heartily agree. On the other hand, it seems clear that without self-conscious spirits it would be almost as difficult to account for the existence of cups and saucers as it would be for that of Paley's celebrated watch. The real question, in short, is not whether any universe might be supposed to exist without spirit, but rather whether such a universe as that which is known to us can be rationally interpreted without reference to self-conscious beings. This problem, however, belongs to the end rather than to the beginning of a philosophical construction. The more realistic aspect of experience has to be dwelt on first.

In view of what has already been urged with reference to Truth, it is not necessary to enlarge at this point on the doctrine of Degrees of Truth and Reality.² It must suffice to state that, just as I have been led to think that, instead of speaking of Degrees of Truth, it is better to speak of Degrees of Correctness in our beliefs, so it has seemed to me that there is a similar objection to speaking of Degrees of Reality. Instead of saying that what appears has some degree of reality, I think it better to say that every appearance is the appearance of some reality, but, being in general imperfectly apprehended, its true place in reality is not rightly discerned. It is implied in this way of speaking that reality is to be con-

* Elements, Book I, chap. viii, and article on "The Meaning of Reality" in Mind (Jan. 1914). It is probable that a good deal of what I have written on this subject calls for reconsideration.

[&]quot;The Refutation of Idealism" (Oct. 1903). See also *Elements*, Book I, chap. x, and article on "The New Realism and the Old Idealism" (*Mind*, July 1904).

ceived as a systematic whole, which cannot rightly be regarded either simply as one or simply as many, but only as a many in one. This is another way of saying that the conception of Substance tends to drop out or fall into the background. It no longer seems fitting to speak, with Spinoza, of a single substance to which everything is to be referred, or, with Leibniz, of a multitude of independent substances. Rather it must be recognized that Berkeley was successful in his attack on material substance and Hume in his attack on spiritual; but the results of these attacks are not purely negative. What they lead to is a revised version of Plato's doctrine of Forms.

Such a revised version is by no means peculiar to myself. Mainly through the influence of German idealism, as represented by Hegel and, in a more qualified form by Lotze, it has come to be realized that a true universal is of the nature of a comprehensive system, which contains or implies particularity. Colour, for instance, is not to be thought of as an abstract quality, separable from particular instances—special varieties and shades of coloration—but as a comprehensive whole within which these particulars are included. Professor Stout has done much to elucidate this way of thinking, both by his excellent Essay on Error 1 and by his more recent paper on Universals and Propositions,2 to both of which I am greatly indebted. I have used the term "Orders" to express the systematic way in which different qualities fall into place within a comprehensive whole.3 It must be admitted, however, that the continuity displayed in the case of colours is, to a large extent, lacking in the other sensible qualities. Even in the case of colours, if we mean by colours those that are actually apprehended, the continuity is incomplete. All existent things are finite. They are a particular

In the volume on Personal Idealism.

¹ Published by the British Academy. I believe that the view set forth by Professor Stout in that paper is not, in any essential respect different from my own.

³ See "Sketch of a philosophy of Order" (Mind, April 1913) and Note on "Universals and Orders" (April 1922); also Elements, Book I, chap. vii.

selection out of a conceivable infinity. This is a point that will be referred to later.

This way of thinking seems to help a good deal towards the understanding of relations. Somewhat unnecessary difficulties appear to me to have been raised about these, chiefly owing to the tendency to regard things as independent substances or entities prior to their relations to one another. From the point of view that is here adopted, the priority belongs rather to the systematic whole, and the relations are involved in its structure. Within a systematic unity, for instance, there inevitably exist such relations as that of more and less, containing and being contained, priority and posteriority, outside and inside, and the like.

It may be well to note that, since the time when my Elements were published, the advances in physical science have tended powerfully to support the general conception of the structure of our universe to which I pointed. Professor Whitehead's admirable book, for instance, on The Concept of Nature seems to show that the old view of the physical system as consisting of separate substances has been as completely abandoned in physical science as in idealistic philosophy. It has given place to the conception of a system of qualities undergoing changes in regular ways within a four-dimensional spatio-temporal system. A view of the same kind has been very thoroughly worked out by Professor Alexander in his book on Space, Time and Deity. Such views are, in the main, quite in harmony with my conception of Orders. It may be well to note also that, when the physical system is conceived in this way, the old difficulty about the interaction between mind and body seems to disappear. The reluctance to recognize such interaction was largely due to a materialistic conception of the nature of "energy." If we recognize that the doctrine of the conservation of energy simply means that there is a certain quantitative equivalence between the potentialities of movement at different times, there seems no reason why this equivalence should not be found in movements connected with conscious choice as well as those that belong only

to the sphere of mechanical transformations. It would still remain true that the movements connected with volition differ from those that are purely automatic, just as those that are connected with the manifestations of light differ from those that are connected with heat or with what is called gravitation.

I urged, however, in my Elements,2 that the spatiotemporal system has to be regarded as limited. This was maintained on purely philosophical grounds-chiefly on the ground referred to above, viz. that all existent things, as distinguished from pure forms or orders, are finite; and I was not able to bring forward anything very definite in support of it from the point of view of physical science. I referred to the not altogether convincing arguments of Lord Kelvin; and had to admit that an opposite view has been maintained by some writers of repute; but I am now able to claim much more decisive support. Whatever may be the final interpretation of the discoveries of Einstein-a matter on which I must confess that I am still a good deal in the dark-it is clear at least that his views point definitely to a limitation in the spatio-temporal system. The recognition of such a limitation seems to involve that it should be regarded as only a partial aspect of a larger whole-what I call the "Cosmos," as distinguished from "our Universe." The attempt to deal with the conception of such a Cosmos, however, is necessarily of a highly speculative character; and it is not possible to deal with it without the use of the conception of Value. Hence I think it best to reserve what has to be said about it in this abstract for notice under the heading of "Philosophy of Religion"; and in the meantime to interpolate a few notes about my method of dealing with Ethics and Social Philosophy.

3. Theory of Conduct.—My Manual of Ethics, being designed as an introductory book for students, was necessarily occupied largely with accounts and criticisms of the views of others; and, even in its more constructive parts, I thought it right to

^{*} See Elements, pp. 257-61, and article in Mind on "Mind and Body" October 1911).

P. 362.

follow, as closely as possible, the general treatment of the subject in Green's Prolegomena—that being the book with which I was most nearly in agreement. I did not entirely agree with Green's philosophical basis, which appeared to me to be too largely dominated, both in its metaphysical and in its more purely ethical aspects, by the doctrines of Kant; and I now regret that I identified myself with his position as closely as I did. The conception of self-realization now seems to me too subjective a basis for Ethics; and I am unable to accept the doctrine that the only ultimate good is goodness. Even from the first I was more inclined to lay stress on the conception of intrinsic value, and to think that the supreme value must include Truth or Insight and Beauty or Loveliness as well as Goodness or Love; and further reflection has convinced me that, if any single term is to be used to characterize it, Beauty (at least in the sense in which the Greeks used the term το καλόν) is less inadequate than any other. I am now inclined to regard the good life as consisting essentially in the effort to create and conserve what is beautiful.

Though it is only in more recent years that I have become fully persuaded of this view, yet it was substantially the view that I had more or less in mind from the outset, and that I used, in particular, in the criticism of Hedonism, to which I devoted a good deal of attention both in the *Manual* and in the *Introduction to Social Philosophy*. With most of what I wrote on this subject I am still in agreement, especially with the contention that pleasure is neither that which has value nor the criterion of value but only the consciousness that something that we value (or that some aspect of our complex nature values) has been attained.

See Elements, pp. 283, 292. The English word "beauty" tends, I think, to be understood in a more limited sense than the Greek expression. I have referred more fully to this subject in a paper on "Spiritual Value" in the International Journal of Ethics, April 1923. The emphasis that I have laid on the æsthetic aspect of experience has brought me into somewhat close relation to the theory that Professor I M. Baldwin has called Pancalism. But I prefer to call it Cosmism.

The conception of a "Universe of Desires," which I emphasized a good deal in the Manual, was meant to bring out the fact that our valuations depend on a general attitude of mind; and that, in this sense, moral progress consists, as Nietzsche expressed it, in a "transvaluation of values"—though I did not agree with the particular way in which Nietzsche thought of this "transvaluation." It is in a similar sense that Ruskin's saying may be accepted, that "morality is good taste"-i.e. that it depends on right valuations. The Socratic doctrine that "no man is willingly deprived of the good" can also be accepted in the sense that no one willingly parts with what he values; but his valuations may belong to a somewhat crude "universe." Self-realization I should not now be inclined to describe as the end, but rather as the necessary condition for the realization of the supreme values. and as one aspect of these values.2

4. Social Philosophy.—If I am right in thinking that the ultimate aim of right conduct lies in the effort to create what is beautiful, the ultimate basis of social life would seem to be found in the fact that this creation is essentially a co-operative creation. I now believe that it would be best to make use of this conception rather than that of a social organism or a general will or even of a common good. On the whole, however, whichever of these conceptions we set out with leads almost inevitably to the same results. But the conception of co-operative creation leads more directly to the recognition of the three main directions in which social ends have to be pursued-viz, the control of the forces of nature to subserve human purposes, the subjugation of the animal passions in human nature itself, and the development of man's own rational or spiritual being. These ends cannot be altogether separated from one another; but they give rise to the three main aspects of a commonwealth—the economic or industrial, the political or legal, and the educational or spiritual. I have

Fifth edition, pp. 47-9.

For the general treatment of Value, see Elements Book II, chap. vii. Also Introduction to Social Philosophy, second edition, Note at end of chap. iv.

emphasized these distinctions in all my chief writings on social questions; t but latterly reflection on the work of Dr. Steiner and on the significance of the caste system in India has led me to realize more fully its importance.

In my earliest book ² I laid a good deal of stress on the value of the Guild system of organization; and I still entertain considerable hopes of the achievement of important results from the adaptation of that system to the conditions of modern life; though I cannot go so far as some of the later Guild socialists do in thinking of it as a panacea for all our ills. I do not think that my attitude with regard to this can properly be described as one of socialism at all, except in the sense in which socialism means simply the repudiation of pure individualism.

From the first, and throughout, I have been opposed to the emphasis on the State as the exclusive or main form of community, and have urged the importance of international unity; and from the first I have recognized the supreme importance of religion as a basis for the kind of unity at which we ought to aim.3 I have never been able to believe that any mere machinery, such as that of a League of Nations, could serve as a substitute for the conception of human brotherhood which a purified religion can alone support. The growing sense of unity among the English-speaking peoples seems to me to hold out a more genuine prospect of an ultimate federation of the world than any number of leagues could yield. The ultimate basis of community must be spiritual, rather than legal.

5. Philosophy of Religion.—Religion, in its most fully developed form, seems to mean devotion to what is regarded as having supreme value or worth. No doubt, most actual forms of religion fall somewhat short of this; but they nearly all approximate to it in some degree. A complete religion may

Introduction to Social Philosophy, chap. vi; Outlines of Social Philosophy, Book I, chap. i, § 3; article on "The Three-fold State" in Hibbert Journal, April 1922.

Introduction to Social Philosophy, second edition, pp. 77-9.

³ See especially Outlines of Social Philosophy, Book III, chap. ii.

be taken to imply the conviction that the real Universe is a Cosmos-i.e. a perfectly beautiful whole. The conception of a Cosmos is, however, difficult to apply to the Universe as we know it, on account of the apparent contingency of some of its aspects and the evil that seems to be contained in others. This difficulty may be at least partly met by the recognition that the supreme value necessarily includes a creative activity by which its being is sustained. This implies a selective process and consequently imperfection in the earlier stages of existence. Evil may be interpreted as opportunity for creative action. Applied to the Universe as a whole, this view leads to the conception of a creative Imagination. In my Elements 1 I connect this conception with Plato's image of a Demiurge. I was not aware, when that was written, that a similar view was being put forward by Mr. Douglas Fawcett in his book on The World as Imagination; nor perhaps had I sufficiently realized to what extent a conception of this kind had been anticipated by Fichte in the closing phase of his philosophical development. In the attempt to apply the conception to the Universe as a whole I was greatly exercised by the problem of Time, and was led to suggest the view of a return of Time into itself.2 I now think that it would be better to think of the time process as absorbing all that has value in the past stages of its development. Whether this should be taken as involving the conception of personal immortality, I had not fully determined at the time when the Elements were written: nor have I now any quite clear view on that subject. But I am led at least to think that the saving of Howison, that unless there is a "creation of creators" there is no creation (a view more recently emphasized by Dr. Ward) may be accepted in the sense that any real creation must be of the nature of a "creative evolution" in which, at the higher stages, the created beings work out their own salvation.3 Perhaps we may even

¹ Pp. 374 seq.

² P. 451.

³ See article on "The Idea of Creation" in *Hibbert Journal*, January 1923. This is, however, only a rough sketch of a view that I hope to develop more fully.

be entitled to say, with the French poet, that "chaque homme fait dieu un peu avec sa vie." In this sense also the view of Professor Alexander may be accepted, that "Deity" comes at the end, rather than at the beginning, of the evolutionary process. But it seems to be a necessary postulate of an idealistic conception of the Cosmos that all that has ultimate value in individual lives must be somehow conserved in the supreme realization. This conservation, however, might be conceived in several different ways.

I agree, however, with Sir Henry Jones in thinking that the main conceptions involved in a religious view of the Universe are best regarded as hypotheses, and not as dogmas. But, if they are the only hypotheses that make our Universe intelligible, one seems entitled to entertain them with a considerable degree of belief. The distinction that I drew in the Elements 1 between hope and belief is perhaps really only a distinction of degree. Most of our scientific beliefs are of a similarly hypothetical character; but of course these are not of so much importance in the conduct of life—at least for the majority of mankind; and hence it is not so difficult in their case to acquiesce in an ignoramus, or even in an ignorabimus. But I see no reason for thinking that we must rest for ever in such an attitude with regard to the more philosophical hypotheses.

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¹ Pp. 468-72

AN ONTOLOGICAL IDEALISM

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AN ONTOLOGICAL IDEALISM

ONTOLOGICALLY I am an Idealist, since I believe that all that exists is spiritual. I am also, in one sense of the term, a Personal Idealist. For I believe that every part of the content of spirit falls within some self, and that no part of it falls within more than one self; and that the only substances are selves, parts of selves, and groups of selves or parts of selves.

On the other hand, I should say that epistemologically I was a Realist. I should say that knowledge was a true belief, and I should say that a belief was true when, and only when, it stands in a relation of correspondence to a fact. I do not think that this particular relation of correspondence can be defined further, but it may be remarked that it is not a relation of copying or of similarity. Of facts I should say that whenever anything is anything, using both "anything" and "is" in the widest possible sense, it is a fact that it is so.

I should define philosophy as the systematic study of the ultimate nature of reality. The phrase "ultimate nature" distinguishes philosophy from science, which systematically studies the nature of reality, but not its ultimate nature.

Reality appears to me to be an indefinable quality, for which Being is another name. Nothing is unreal. When we say that the present Duke of London is unreal, what we mean is that the description "the present Duke of London" is a description which applies to nothing.

Existence appears to me to be another indefinable quality, which is such that all which is existent is necessarily real, but all which is real is not necessarily existent. It has been said that propositions, possibilities, qualities, and relations are real without being existent. I do not think that the independent

reality of propositions or possibilities can be justified. But qualities and relations (which may be grouped together under the general name of characteristics) are in themselves real without being existent. The qualities and relations of existent substances, however, may be called, as such, existent.

I have confined myself to a study of the nature of existence. It is the existent alone which has any practical interest for us. And the nature of the existent involves the nature of all other reality, since, taking any quality x, it is clear that each existent thing must have either that quality or the quality not-x, whose nature depends on the nature of x.

I have divided my system into two parts. The first admits only two empirical premises—"something exists," and "what exists is differentiated." The rest of it professes to be entirely à priori. In the second part the results obtained in the first part will be applied to those general characteristics which empirical observation tells us are, or appear to be, true of various parts of the existent."

We know empirically that something exists. This is given us in perception. (I use the words "perception" and "awareness" in the senses in which they are defined by Mr. Russell in his Mysticism and Logic.) And if it should be denied or doubted that anything existed, then the very assertion of or denial or doubt would show that, at least, the assertion in question existed.

Existence is a quality. And it is evident that whatever exists must have some quality besides existence. The conception of quality is indefinable. For every positive quality, x, there is a negative quality, not-x, and one member of this pair can be predicated of everything that exists. Some qualities are Simple, and do not admit of analysis. Others are Compound, consisting of an aggregate of simple qualities. Others are Complex, which do not consist of simple qualities, but can be analysed and defined by means of simple qualities

¹ The first part is contained in vol. i of *The Nature of Existence*, published in 1921. The second part will occupy vol. ii of the same work, which I hope to publish in 1926 or 1927.

and simple relations. (Negative qualities are complex.) The compound quality which is an aggregate of all the non-compound qualities possessed by anything may be called the Nature of that thing.

I hold that the existence of qualities involves the existence of Substances. I should define a substance as that which has qualities and is related, without being itself either a quality of a relation, or having qualities or relations among its parts. (The first part of this is the traditional definition of substance. The last part is added to exclude facts.) By this definition many things would be called substances which are not usually called so, such as a sneeze or the group consisting of all red-headed archdeacons.

Is there only one substance, or are there more? Here, for a second time, and the last in the first part of my system, I appeal to perception, which shows us that more substances than one exist. But, at the same time, all the substances which exist may be taken together as a single substance.

Since there are more substances than one, they must exist in relations to one another—though, of course, relations also exist between qualities and relations, just as both qualities and relations have qualities. The conception of relation is indefinable, like the conception of quality. It is as fundamental as the conception of quality, and it is impossible to dispense with either of them in favour of the other.

Every relationship generates a derivative quality in each of its terms—the quality of being a term in that relationship. In the same way a derivative relation is generated between any quality and the substance which has it, and between every relation and each of its terms. Thus infinite series of characteristics are generated, but these infinite series are not vicious.

It seems clear to me that two substances cannot have exactly the same nature. (The difference, however, may not be a difference in original qualities, but may consist entirely in a difference of original relations, together with the difference in the derivative characteristics generated by those relations.) This result may be called the Dissimilarity of the Diverse.

Substances, being particular, cannot be defined, but they may be described. A description which applies only to one substance is an Exclusive Description of it. An exclusive description which is entirely in terms of qualities and relations, without introducing undescribed substances, I call a Sufficient description. Since no two substances have exactly the same nature, every substance has an exclusive description, and it can be shown to follow from this that, to avoid a vicious infinite series, every substance must have a sufficient description.

Some characteristics clearly imply others, since it is sometimes true that, if one substance has the characteristic X, that substance, or another which stands to it in some definite relation, will have the characteristic Y. This may be called Intrinsic Determination. But besides this there is a relation between all the characteristics of the same substance, such that, if any one of them were not a characteristic of that substance, we could not assert that any others of them were characteristic of that substance. This relation I have called Extrinsic Determination.

The nature of a substance may be regarded as a unity compounded of the particular characteristics which constitute it. But it may be regarded with equal truth as a unity which is manifested in those characteristics.

We now pass from the consideration of single substances to the consideration of Groups. By a Group I mean any collection formed of substances, or of collections of substances, or of both. The substances or collections which form the collection are called Members of the group. A group is distinguished from a Class, which is determined by a class-concept, while a group is determined by denotation. Any combination of substances or groups is a group, however trivial or unimportant the similarities and connections between its members.

We must distinguish between the members and parts of a group. If we take the group of all the counties in Great Britain, Surrey is both a member and a part of it. England and Whitechapel are parts, but not members. The relation of Whole and Part appears to me to be indefinable.

At this point we must introduce two further conceptions.

A Set of Parts of any whole is any collection of its parts which together make up the whole, and do not do more than make it up, so that the whole would not be made up if any of those parts, or of their parts, should be subtracted. A group may have many sets of parts, and I use the term Content of the Group to designate that plurality which is identical in the various sets of parts of a Group.

It follows from the definitions of a substance and a group that every group is a compound substance, but that several groups may be the same compound substance, e.g., the group of the counties of England and the group of the parishes of England are the same compound substance.

There is no group which contains all other groups, but there is one substance which contains all other substances. This substance is the Universe.

By means of the conception of the universe we can show that extrinsic determination is more extensive than was previously asserted, and that every fact about any substance extrinsically determines every fact about every other substance.

I pass to a position which is very vital to my system—the position that no substance is simple. It is possible that a substance is simple in some of its dimensions, but it could not be simple in all of them. This proposition appears to me to be self-evident and ultimate. I do not, therefore, attempt to defend it by direct arguments, though I believe that it is possible, by various explanations, to remove certain objections which might naturally be made to it.

Every substance, therefore, will have an infinite number of sets of parts. When two sets are such that no part in the second falls within more than one part of the first, while at least one part of the first set contains two or more parts of the second, I call the first set Precedent to the second, and the second Sequent to the first.

But now a difficulty arises. When the occurrence of the quality X determines intrinsically the occurrence of either the quality Y or the quality Z, but does not intrinsically determine whether it shall be Y or Z which does occur, let us say that

X Presupposes the one of the two, Y or Z, which does actually occur. X may have more than one presupposition, and two of them may be such that when one of them is fixed to one of the alternatives, it implies the fixing of the other to one of the alternatives. Let us define the Total Ultimate Presupposition of X as being the aggregate of all the presuppositions of X after all those have been removed, the fixing of which is implied in the fixing of any of those which remain.

It is clear that whatever has a presupposition must have a total ultimate presupposition. But I maintain that it can be demonstrated that the sufficient descriptions of the members of any set of parts of a substance, would except on one condition, have a presupposition without a total ultimate presupposition, which is absurd. The one condition on which this could be avoided must therefore be true. And that condition is that there must be some description of any substance, A, which implies sufficient descriptions of the members of all its sets of parts which are sequent to some given set of parts.

I think that there is only one way in which this result can be attained. Let A have a set of parts, B and C. Let it be true, in the first place, that each of these parts has a set of parts corresponding to each set of parts of A. In the second place, let it be true that the correspondence is of the same sort throughout, and that it is such that a certain sufficient description of C, which includes the fact that it is in this relation to some part of B, will determine a sufficient description of the part of B in question. And in the third place, let it be true that the correspondence is such that, when one determinant is part of another determinant, then any part determined by the first will be part of a part determined by the second.

I write B!C for that part of B which corresponds to C, and B!C!D for that part of B which corresponds to that part of C which corresponds to D, and so on. I call such correspondence a Determining Correspondence, since by it, with the help of sufficient descriptions of B and C, we can determine a sufficient description of B!C. I speak of C as the Determinant of B!C, and of B!C as the Determinate of C, or as determined by C.

I say that B!C!D is Directly Determined by C!D, and Indirectly Determined by D. I call A a Primary Whole, and B a Primary Part. I call B!C a Secondary Part of the First Grade, B!C!D a Secondary Part of the Second Grade, and so on.

If the conditions mentioned above are fulfilled, it follows that sufficient descriptions of the primary parts will determine sufficient descriptions of parts of parts of A through an infinite series. We shall then have fulfilled the only condition, by fulfilling which it is possible to escape from the contradiction which would otherwise be involved in the infinite divisibility of substance. And as there seems no other theory which would fulfil this condition, I hold that we are entitled to regard the theory of determining correspondence as true, and to assert that the universe consists of one or more primary wholes, which, again, consist of primary parts, whose further parts are determined by determining correspondence.

It is not necessary, in order to establish determining correspondence, that each primary part should have parts corresponding to all the primary parts in its primary whole. It might have parts corresponding only to a certain number of them—e.g., to B and C, when the primary whole contained B, C, D, and E. Nor is it necessary that every primary part should be a determinant at all—though, of course, every primary part must be a determinate.

If, as I believe, causation is to be defined as a relation of intrinsic determination between the occurrence of existing qualities, it follows that determining correspondence is a causal relation, and, consequently, that a network of causal relations spreads through every primary part of the universe, though it does not follow that the occurrence of every existing quality is causally determined.

Determining correspondence also involves a classification of the content of the universe—into primary wholes, primary parts, secondary parts of the first grade, of the second grade, and so on. It can be shown that this classification is based on qualities which are of fundamental importance, and it

may therefore be called the Fundamental System of the Universe.

In order that the secondary parts may be differentiated by determining correspondence, it is necessary that the primary parts should be differentiated independently of determining correspondence. This could happen in several ways. It might happen by a difference in original qualities, or by a difference in the sort of relations in which they stand to other things. Or, again, it might happen by a difference in the terms to which they stood in certain relations—though this last method of differentiation could not be the only method applicable to all primary parts, since that would involve a vicious infinite.

I now pass to the second part of my philosophy—as yet unpublished—in which the results obtained in the first part will be applied to those general characteristics which empirical observation tells us are, or appear to be, true of various parts of the existent. In this part of the system it is impossible to hope for the absolute demonstration of positive results. The most that we can do is to show that certain empirically-known characteristics will meet the à priori requirements of the first parts, and that no other characteristic which we know or can imagine will do so. But this will not assure us that the universe does possess these characteristics. For there may be others, which we have never experienced or imagined, which could also satisfy the à priori requirements. And it may be these latter which are found in part or all of the existent. But although we cannot attain absolute demonstration here, we may, I think, attain reasonable certainty. (With negative results we may be able to reach absolute demonstration. If we are certain à priori that nothing with the the quality x can be real, we can be certain that any empirically-known characteristic, which involves the quality x, cannot be true of reality.)

It seems to me that one empirically-known characteristic which cannot really belong to anything that exists is the characteristic of Time. I can only briefly summarize the argument which leads me to this conclusion. It is: that nothing can be really in time unless it really forms a series of Past, Present,

and Future (which may be called an A series), as well as a series of Earlier and Later (which may be called a B series). But the A series involves a contradiction. For every term of it is both past, present, and future. And, on the other hand, the three predicates are incompatible. But, again, we cannot regard the time series as totally erroneous. The terms which appear to us as a temporal series connected by the relation "earlier than," really do form a non-temporal series connected by another relation. (This I call the C series. It follows from what I have said that things are really in a C series, but not really in any A or B series.) I

We must also, I think, hold that nothing which exists can have the quality of being matter. My positive reason for holding this conclusion is that it appears impossible for anything which has the quality of materiality to have that determining correspondence between its parts which we have seen that all substances must have. This conclusion, however, can be supported by showing (as I have endeavoured to show in the third chapter of Some Dogmas of Religion) that the positive arguments put forward for the existence of matter are untenable.

It also seems inevitable that we should reject the reality of sense data—I do not mean that we must deny that we have objects which we perceive, but that we must hold that those objects have not the nature which is usually connoted by the name, sense data. The ground for this assertion is, again, that nothing which has the quality of being a sense datum can have determining correspondence between its parts. This position, like that of the unreality of time, involves that perception is sometimes erroneous. (I use Perception to mean the direct awareness of any substance.) The unreality of matter does not involve erroneous perception, since we never perceive anything as being material, though we judge it to be material.

What, then, shall we say about spirit? What, in the first place, do we mean by spirit? I should say that spirituality is the quality of having content—in the sense previously defined

A fuller exposition of this argument may be found in my article, "The Unreality of Time," Mind, 1908.

—all of which is content of one or more selves. I should say that the quality of being a self is a simple quality which is known to me because I perceive—in the strict sense of the word—one substance as possessing it. This substance is myself.¹

With regard to selves, I hold, further, that a self can be conscious without being self-conscious, and that it is possible for a self not to be self-conscious. I also hold that it is impossible for one self to be part of another self, or for two selves to have any common part.

The activities which spirits have, or appear prima facie to have, are perceptions, awarenesses of characteristics, judgments, assumptions (the Annahmen of Meinong), images, volitions, and emotions. By perceptions, as I have said, I mean the awareness of any substance. But, since we can base judgments as to the characteristics of substances on our perceptions of those substances, we must conclude that, although we cannot perceive that the substance A has the characteristic X, we can perceive the substance A as having the characteristic X.

There are three propositions about perception for which, I think, good reasons can be given. The first is that there is no intrinsic impossibility in a self perceiving another self, or a part of another self. The second is that a perception is part of a percipient self. The third is that a perception of the part of a whole can be part of a perception of that whole.

Then it follows that perception could be a relation of determining correspondence. We might have a primary whole, all of whose primary parts were selves, each of whom perceived all or some of the selves in the primary whole, and also perceived all the parts of each self it perceived. And it might be the case that each self had only one perception of each perception, and that he had no other contents but these perceptions. And in this case sufficient descriptions would be determined, within each self, of parts within parts to infinity. For each part would be sufficiently described by the description that it was the perception which a given self had of a given self, or of a given

^{*} Cp. my article on "Personality," in the Encyclopædia of Religion and Ethics

perception within a given self. In order that this should be the case, it would be necessary that each self should have a sufficient description which did not depend on determining correspondence. Such a description might be based either on qualitative or quantitative differences between the selves (or on both), combined possibly with differences in relations.

It can be shown, further, that, while perception can thus give us determining correspondence, neither judgments, assumptions, images, or awareness of characteristics can do so.

There must be some substances whose parts admit of determination to infinity by determining correspondence. For there can be no substance which does not meet this requirement, and we know that there are some substances. Only three sorts of substance appear to be given us in experience—matter, sense data, and spirit. We do not know, and we cannot imagine, any others. We have seen that no substance can really be matter or sense data. This does not absolutely prove that all substances, or any substances, are spirits. For perhaps some, or all, substances are of some other nature which we do not know and cannot imagine. But although we have not here any absolute demonstration, we have, I think, good reason to believe that all reality is spiritual—in other words, that nothing exists except selves, groups of selves, and parts of selves.

What, then, about volition and emotion? I hold, in accordance with a view suggested by Dr. Moore, that a desire or an emotion is primarily a cogitation of the object of desire or emotion, which has a further quality—ultimate, and irreducible to any other sort of quality—which makes it a desire or an emotion. I hold that perceptions, which are cogitations, can be volitions and emotions.

Each of us has a perception of at least one other self. And I think that good reason can be shown for concluding that the relation in which a self stands to a self which it perceives is a relation of love—the percipient self loving the perceived self. By love I mean what is generally meant by the word—an emotion felt by one person towards another person.

This is the fact which decides all other emotions. If I love

A, I shall regard myself with reverence, because I love him. If I indirectly perceive B, by perceiving A's perception of him, then, since I love A, and A loves B, I shall regard B with a feeling which may be distinguished from love by calling it affection. And I shall regard with complacency the parts of selves whom I regard with love, self-reverence, or affection.

There remains volition. Our perceptions cannot be ungratified volitions, since their objects exist. But are they gratified volitions, or not volitions at all? This question is answered by our last result. We cannot but acquiesce in the existence of what we regard with love, self-reverence, affection, or complacency; and the essence of volition is acquiescence.

If our conclusions are correct, the universe consists of selves, arranged in one or more primary wholes, whose whole content consists in their perceptions of themselves and of each other—perceptions which have emotional and volitional qualities such as those in our present experience, but, there is reason to believe, much more intense in quantity than they are in our present experience. Are such selves immortal? If we take immortality to mean endless existence in time—and I think it should be taken in this way—it is clear that selves cannot be really immortal, since they are not really in time. But the question still remains whether, when they appear sub specie temporis, their lives will appear as having or not having an end in time.

If the universe—the whole of that which exists—is of this nature can it include a self who is God? I use "God" to designate a being who is a self, who is good, and whose power is such that, whether he does or does not create all other selves, his volition can profoundly affect them.

It is clear to begin with that there can be no one who is really the creator of the universe, since the created must be in time, even if the creator could be timeless, and since nothing is in time. Nor could there even be a being who, sub specie temporis, appeared as a creator. For this there are three reasons. In the first place, both God and the other selves would be primary parts, and they could not be dependent on God in any way in which God was not dependent on them. In the second place

God's volitions respecting them, like all volitions of all primary selves, would be cogitatively perceptions, and therefore they would depend on their objects, and not their objects on them. In the third place, I think that it can be proved that, sub specie temporis, all selves begin simultaneously, so that God could not appear to be prior to the other selves in time.

The first and third of these objections do not apply to the view that God, while not creating the rest of the universe, controls it, but the second objection would apply to this hypothesis alone.

But, it might be said, it is certainly the case that the volitions of selves do appear to affect the state of the rest of the universe. And could there not be some self whose volitions had the appearance—which, though only an appearance, would be a phenomenon bene fundatum—of influencing the rest of the universe so profoundly that he would properly be called a god? There might be such a being, but there seems no evidence which should make his existence probable. And it must be noticed that, if our theory is true, the force of the argument from design would be greatly weakened, if not entirely destroyed, since it can be shown that a certain amount of order, and, as we shall see later, a certain direction towards the good, follows from the intrinsic nature of existence, and so does not suggest a conscious designer as its only possible cause.

It is clear that, if this is the real nature of what exists, it appears to be something very different from what it is. (1) It appears to include matter and sense data, while really it includes nothing but spirit. (2) I appear to perceive myself, parts of myself, sense data, and nothing else. But in reality I do not perceive sense data, and I do perceive other selves and their parts. (3) I appear to have judgments, assumptions, and images, when in reality the whole content of myself consists in presentations. (4) Many of my volitions and emotions appear to be judgments, assumptions, or images, while in reality they are all perceptions. (5) All that I perceive appears to be in time, while in reality nothing is in time. Can we explain how reality should appear to be so different from what it really is?

This will involve our accepting the possibility of erroneous perception. Even if part of our cognition consisted of judgments, some of the errors in appearance mentioned above must be put down to perception. And, if our theory is true, all our cognition is really perception, and so all error must fall in perception. But is it not an essential and self-evident characteristic of perception that there is no possibility that it should be erroneous? And, if we remove this characteristic from anything, do not we thereby declare that it is not perception?

But when we look more closely we see that our certainty as to the correctness of perception is only that what I perceive exists, and exists as I perceive it, at the time at which I perceive it, and there is no certainty about any other time. Now we have seen that time is unreal. The condition "at the time at which I perceive it" must be translated into something else before it gives us the truth. And if that translation should allow for erroneous perception, we shall have achieved our end. It is clear, therefore, that the explanation of all error must be closely associated with the appearance of time.

It is only possible for me here to state what my theory is, omitting both the arguments which seem to me to render it impossible to accept various alternative theories, and also the exposition of the way in which I think that this theory does explain satisfactorily in detail the difference of the appearance from the reality.

The content of all selves, as we have seen, forms a system of perceptions which is determined by determining correspondence, and is in two dimensions—one dimension being the series of primary parts, secondary parts of the first grade, secondary parts of the second grade, and so on infinitely, while the other dimension is the series of parts in each grade. I believe that each of these parts is divided in another dimension into a series of other parts. The parts in this dimension are not determined by determining correspondence, and so must be simple parts, though, so far as I can see, there is nothing to determine whether their number is finite or infinite. (The series, as we shall see,

is bounded at both ends, but might contain an infinite number of parts if there were no next terms.)

I hold that in any perception, G!H, all these parts are states of misperception by G of H, while G!H, of which they are parts, is a correct perception by G of H. (By a correct perception I mean one which, while not necessarily perceiving H as having all the qualities which it does have, perceives it as having some of the qualities, which it does have, and does not perceive it as having any qualities which it does not have.)

Each of these states in the misperception series of G!H will be a misperception of H as a whole. H, like G, will have such a series within him and will be perceived by G as having it. But part of the erroneous element of G's perception of H will be to regard this C series as a B series, and consequently H will be misperceived by G as existing in time. (G, of course, can also perceive himself, in his perception G!G, and so misperceive himself as existing in time.)

Any perception in G will perceive at present whatever in H is at the same stage in the series as itself. It will perceive as future or as past whatever is at a different stage in the series. The only perceptions which are apparent perceptions—that is, which appear to be, as they are, perceptions—are some of those which are at the same stage in the series as their percepta. All others appear, not as perceptions, but as judgments, assumptions, or images. But even perceptions which are at the same stage of the series as their percepta, appear in some cases, not as perceptions, but as judgments, assumptions, or images.

What is the relation which connects the terms of the series—the relation which, when misperceived as temporal, appears as the relation of earlier and later? In view of the fact that the terms of the series are all states of misperception, while the whole of which they are parts is a state of correct perception, I believe that it can be shown that the terms of the series, though each a part of the whole, do not form a set of parts of the whole, and that no two of them can be mutually outside each other. The only alternative is that, of any two terms in the series, one must include the other.

We have thus an Inclusion Series, whose terms are related by the related "included in," and the last term of which will be G! H itself, which includes all the others. All the terms of this series, with the exception of G! H itself, which is correct, form a Misperception Series. And when the series is itself misperceived as being in time, the whole Inclusion Series acts as a C series—i.e. the series which is misperceived as a B series. The last member, however, G! H, can never appear as present. For it could only appear as present to a term which was at the same stage in a series as itself, i.e. was a final term in a series. And as the final terms are not misperceptions, they could not perceive anything as being in time.

It follows from the fact that the inclusion series appears as the time series, that the time series is limited at both ends, and that a finite number of durations which are next terms to each other will exhaust it, in the sense that from any point of it we shall reach either end of the series in a finite time.

When we consider what is meant by the time series in different selves having a common C series, it follows that (in either direction) the final terms of the time series of all selves will appear, sub specie temporis, to be simultaneous.

We have seen that the relations "inclusion of" and "included in" appear, sub specie temporis, as "earlier than," and "later than." But which of them appears as which? It appears clear that, in the time series, the relation "earlier than" is more fundamental than the relation "later than," since it arranges the terms in the order of actual change. And when we look into the exact nature of the inclusion series, there is good reason, I think, to regard the relation "included in" as more fundamental to it than the relation of "inclusive of." And from these two results, I think that it is reasonable to conclude that it is the relation "included in" which appears as the relation "earlier than."

Then, in the inclusion series of H, it is H itself (which includes all the other terms, and is included in none of them), which, when the series appears as a temporal series, will appear as the latest term. (As this term contains all the content which is

to be found in any part of the series, it may be called the whole of the series.) For the standpoint of any other term it will appear as future—never as past or present. From its own standpoint, however, it will not appear as present, but as time-lessly eternal. For this case is not in the misperception series, and so cannot misperceive itself as in time.

It follows that the whole is, not really future, since nothing is really temporal, but as really future as my breakfast to-morrow is future.

We return to the question of immortality. After a finite time (speaking sub specie temporis), each self reaches the term of the whole, beyond which there is no other. But that term is the end of the time series. When this term is looked at from the standpoint of any earlier term, sub specie temporis, it will be perceived as unending (which it is, since there is nothing beyond it in that direction), and as being in time. And since we shall reach a state which sub specie temporis is, an unending time, it will follow that, sub specie temporis, we are immortal. We are not really immortal, in the sense in which I have taken the word, but this is not because our lives really end (which they do not), but because their unendingness is not an unending duration in time. Thus the view, which has been maintained by some Christians, that heaven is both timeless and future, is not necessarily contradictory.

On the other hand, while, sub specie temporis, our lives never end, they do begin. For in this direction the birth of the series is a zero of content, which is not a term of the series of inclusive contents. And therefore the whole series will, in this direction, be limited by something outside itself, and so will appear as beginning in time.

How long, for each of us, the part of the series before, or after, the present life, is in comparison with that life, we cannot tell. But there seem empirical reasons for supposing that it is very great—that is that, sub specie temporis, a great length of time has passed from the beginning of time to the birth of my present body, and a great length will pass from the death of my present body till the attainment of the final term. There

seem reasons to suppose that both these periods are divided up into a plurality of lives, separated from one another, as the present life of each of us is separated from all that goes before and all that goes after.¹

What can we say of the value in the universe, if our theory of the nature of the universe is true? People do not agree as to what qualities of the existent give it value. But I think that there would be general agreement that they would not include anything not included in the following list: knowledge, virtue, the possession of certain emotions, happiness, extent and intensity of consciousness, and harmony.

We decided of the final states of the inclusion series—those states which were the wholes of the determining correspondence parts, as distinguished from their parts in the discussion of inclusion—that in them the whole content of each self would consist in perceiving selves and their parts, and perceiving them correctly, that all their perceptions would be states of acquiescence in what was perceived, that each self would love all the other selves he perceived, and that this would determine his emotions toward himself, towards the selves perceived by the selves whom he perceived, and to the parts of all selves. Now if this state of things is judged by any or all of the criteria of goodness enumerated in the last paragraph, it will be very good. It will not possess complete good, which is impossible, since there is always a degree of good greater than any given degree of good, but it will possess very much greater good than we ever now experience, and the good will be unmixed with evil.

In all the other stages of the inclusion series, which are states of misperception, and whose nature will therefore be different, there is no guarantee that the states will be very good, or unmixed with evil. And since our present life is within those stages, we know empirically that they are partly good and partly bad.

Can we estimate all the values in the universe, including both the final and the pre-final stages? The pre-final stages

¹ Cp. Some Dogmas of Religion, chap. 4.

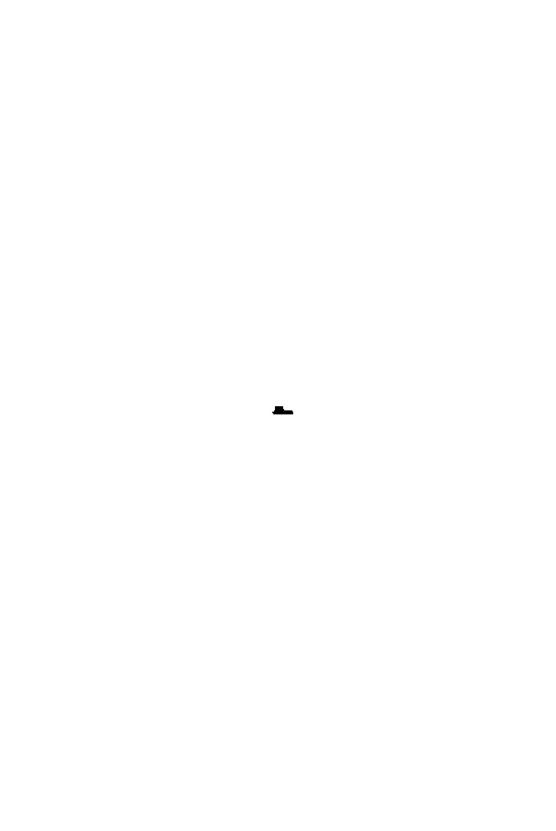
appear, sub specie temporis, as finite in time, the final stage as infinite in time. The value of any stage varies, cateris paribus, according to its duration in time. But, as the final stage does not appear to itself as in time at all, we cannot infer directly that the value of the final stage is infinitely greater than that of all the rest. I think, however, that good reasons can be given for holding that the limitation or non-limitation of value depends on boundedness or unboundedness, and not on whether this appears sub specie temporis or not. In that case the final stage will have infinitely more value than the aggregate of all the others. And as the final stage is unmixed good, and the others are mixed good and evil, the universe as a whole and every self in the universe, is infinitely more good than bad, although the evil—what there is of it—is just as real as the good.

There is, then, a state of very good and unmixed good, which, sub specie temporis, must be regarded as lying in the future, and as being reached in a finite time, while it is itself endless. But the time required to reach it may have any finite length, however great, and we do not know how much evil may await us during that period. What we do know, if our conclusions are correct, is that all the evil of the future and the past are surpassed infinitely in value by the good which lies at the end of time.

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A PHILOSOPHY OF EVOLUTION

By C. LLOYD MORGAN

Born 1852; Royal School of Mines; Emeritus Professor Bristol University

BIOGRAPHICAL

My paternal forbears, as my name imports, were Welsh. There are drops of Keltic, perhaps Silurian, blood in my veins.

Precluded, for sufficient reason, from following my father and elder brother to Winchester, I was sent to a Grammar School of the old type, and there nurtured in the straitest sect of classical tradition. Of Latin and Greek I learnt a little; of that little I have in large measure forgotten the details; only a dispositional "set" remains. But perhaps the seed of some appreciation of abiding things greatly expressed was there implanted in a soil not wholly unreceptive. In English Literature I received scarcely any formal instruction, though in my late schooldays the head master sometimes bade me read Shakespeare to him, commenting on the spirit rather than the letter of the text; and every Sunday he read me the "Keble" for the day. And it so happened that two or three of my elder schoolfellows-prefects who were supposed to keep us small fry snug in our dormitories-were ardent admirers of Keats and Shelley, with kindly tolerance for Wordsworth. They allowed me to creep from my cell in night-garb (when the coast was clear) and enter the fringe of their charmed circle. And though, when their eye was not on me I fell away to Byron, Scott, and even Tommy Moore, I felt that there were poets subtler in quality than they whom I, too, some day, might sincerely admire. Nor was prose (in specimens) neglected. My heroes noted or committed to memory their favourite passages and declaimed them in dim light and in subdued tones lest sleepers should awake. I still on occasion snatch their distant echoes.

Thus formally and informally—the latter to be counted as well as the former—my school upbringing was almost exclusively literary.

School days over, there was much home discussion as to some definite line of procedure which might lead to a modest competency. I must confess that my own attitude was for the most part negative to all proposals, clerkly or other. My father, who was interested in science, especially in geology in its practical applications, pro-

posed that I should go to the Royal College of Chemistry, then in Oxford Street, with a view to mining engineering as a profession. I doubted whether I had any real bent that way. Might I have a three months' trial trip (under Frankland and Valentin) to see what this "science" was like? It was all very new and strange. But it was not only good enough; it was amazingly good. It opened up a world hitherto hidden from my eyes. So I entered on the full course; pursued it with zest; and in due time gained my diploma as Associate of the Royal School of Mines in mining and metallurgy.

Meanwhile, shortly before leaving school and during my professional training, the Rector of Weybridge, where my parents then lived, led me to read Berkeley's Principles and Hume's Enquiry, partly as examples of literary form in continuous discourse, but chiefly, I surmise, as an initiation into the realm of philosophy. He guided my further reading, bidding me always to go to the masters, and regard digests merely as subsidiary aids; and, fanning the flame of this interest, insisted on my tackling Spinoza, "quite the finest bit of coral for philosophic gums." Understand Spinoza? Assuredly not. I was then quite incapable of grasping his thought; perhaps now my hold on it is only a little less inadequate. None the less I felt that he provided the hinge on which the door I sought to open turned. In some such way it came about that throughout my course of scientific study it was the relation of what I then learnt to world-interpretation, rather than its relation to getting a living by its application, that bulked large to my view. Shall I confess that, being then young and given to day-dreams, I secretly cherished a hope that, since Descartes and Spinoza and Leibniz had in large measure built their philosophy on scientific foundations, I, too, might some day follow, at a long and respectful distance, in their footsteps? But this was too presumptuous. Where was the bread-let alone the butter-to come from?

Furthermore, I was still unprepared to carry out any such task even for the good of my own soul. I had, of course, read the Origin of Species and much that had been written thereon. But I had learnt that scientific knowledge cannot be won through reading only, however diligent.

I have elsewhere mentioned (in the Preface to my Gifford Lectures on *Emergent Evolution*, where details necessarily omitted in the subjoined outline sketch of my philosophical position may be found) how at Huxley's suggestion I took a course under him in biology; and how a few encouraging words from him lent support to my belief that the borderland problems of life and mind afforded a

promising plot for an effort at intensive cultivation under the spade work of careful observation.

I had now an end in view, and some preparation for its prosecution. Engineering as a profession was no longer above my horizon. None the less my training therefor counted not a little. Still, I had somehow to get a living. So I tried my prentice hand at teaching with such teachers as Huxley, Tyndall, and W. K. Clifford as a far-off ideal—an unattainable ideal no doubt, but something towards which one might press on. After occasional work in schools I was appointed lecturer (Physical Science, English Literature, and Constitutional History) at the Diocesan College near Cape Town. There I served five years. Shortly after my return to England I was appointed by the Council of University College, Bristol, as lecturer to carry on, for the remainder of the Session 1883-4, the work in Geology and Zoology relinquished by Professor Sollas, who had been called to Trinity College, Dublin. At the close of the session my appointment as lecturer was continued. In due course I became Professor; and in 1887 Dean, and subsequently Principal. In that capacity I endeavoured to place the College in such a position as to justify the grant of a University Charter.

In fine, a boy with literary tastes, with early education in the humanities, and (I may add) with an ineradicable caccethes scribendi; a youth for whom philosophy had a strong appeal; one who concurrently received a training in science for professional ends; one who was thus drawn to the interpretation of nature, in the most comprehensive sense, with the growing conviction that philosophy and science should contribute to one synthesis; one who has taught in several different class-rooms, but always subject to the vision of a philosophic end; now a contributor to this representative symposium; and hence (by request) the self-sacrificing victim of an autobiographical sketch. If it have any interest, this may lie in the somewhat unusual avenue of approach to the highlands of philosophic thought. Whether a more normal course of academic discipline would have been for better or for worse I cannot say.

A PHILOSOPHY OF EVOLUTION

T

In attempting to give a sketch of what purports to be a constructive philosophy of evolution, I plead guilty at the outset to the charge of accepting sundry presuppositions which are not susceptible of positive proof. I shall speak of such acceptance as acknowledgment. That which is thus acknowledged openly and avowedly goes beyond the evidence; such evidence, for example, as is afforded by the phenomena with which we are primarily acquainted in sensory experience; but a condition of its acceptance is that it contains nothing that is discrepant with that experience.

The detection of such discrepancy as shall preclude acknowledgment is the aim of a critical philosophy which, it is claimed, should take ranks as a branch of science the subject-matter of which is the fundamental concepts that other branches of science take for granted as part of their departmental policy of interpretation. It has of late years been prosecuted with vigour, largely on the basis of phenomenalism, and has given results of great value, especially in relation to that which Professor Whitehead deals with under the Concept of Nature, as he defines "nature," i.e. that which exists in some wise independently of our apprehension and of the reflective thought in and through which it is interpreted. On these terms the problem of apprehension is another story, since mind is not regarded as part and parcel of "nature" as defined. The problem, thus relegated (by Mr. Whitehead) to "metaphysics," is, however, for an evolutionary concept of nature, one that is still of prime importance.

A constructive philosophy, as contrasted with a science or philosophy of criticism, essays a difficult task; and there are many—presumably there will always be many—who deem the outcome of little worth. There are others, however, who feel an imperative call to formulate, as best they can in accord with the knowledge of their day, a consistent scheme. Here some speculative hypotheses are not only permissible but necessary. If, however, they be entertained, even provisionally, this must always, I repeat, be subject to the proviso that, though there be lack of positive evidence by which they can be proved, there shall be nothing in them that contradicts the evidence that is available.

In any constructive philosophy—thus in some measure admittedly speculative—it conduces to clearness of exposition if one indicate at the outset the cardinal presuppositions—those which are accepted under what I call acknowledgment. And since I have neither right nor authority to speak for others, for myself alone I here speak.

In the first place, then, I acknowledge a physical world of current events, existent in its own right in so far as it is nowise dependent on being perceived or thought of by any human or sub-human mind. During the early phases of evolutionary progress there were no such minds to perceive the physical world or to interpret it reflectively. None the less I acknowledge that physical events then ran their course as a non-mental system, on a natural plan, in such wise as to be interpretable (though not yet interpreted) in terms, say, of a 4-dimensional space-time frame.

But what are we to understand by physical events? And what by a physical world? It is often convenient to distinguish, so far as this is possible, physical from chemical events, and these from such events as occur in the cortex of the human brain. Here and now I include all these under the general heading of the physical world. There may be more in this physical world—let us say in the cortex of the brain—than can be interpreted in terms of purely physical events only. But this something more (if it be granted) always "involves," as

I shall phrase it, an underlying stream of such physical events. If the less be not there the more has no being. Although, as I think, the evidence points to this conclusion, it is questionable whether it is susceptible of proof. Hence it is here accepted under acknowledgment, as part of that which purports to be a constructive scheme. On these terms the physical world is that which "involves" a basis of physical events existent in their own right.

To interpret the physical world, however, one must take into consideration the kinds of relatedness that obtain therein. In company with Professor Alexander I accept, as nowise contradictory to the evidence, and as part of the constructive scheme of evolutionary philosophy, an ascending hierarchy of kinds of relatedness. There is a kind of relatedness (a) of physical events in the atom; there is a supervenient kind of relatedness (b) of atoms in the molecule; there is a further kind of relatedness (c) of specialized molecules in the organic cell; there is the yet further kind of relatedness (d) of all the cellular tissues of the organism. These are only salient examples. We do not find (d) without (c), nor (c) without (b); or, as I put it, (d) involves (c), and (c) involves (b). To this I shall return in Section VII.

So far there is acknowledgment of a non-mental physical world with an order of involution in the kinds of relatedness among physical events or new clusters of physical events.

Next I acknowledge also correlation of psychical with physical events. When certain physical events occur in the cortex of the brain there is what is commonly spoken of as consciousness, sometimes as sentience, or what Mr. Alexander speaks of as enjoyment. Correlation in this sense just names, adequately or inadequately, that which I here acknowledge as nowise contradictory to such evidence as is available. It must not be confused with parallelism, or with interaction, which have this in common: that they imply two disparate orders of being. That is a different acknowledgment—no less speculative than this one.

And this acknowledgment is, for my constructive scheme,

without reservation or restriction. In accordance with it there are no physical events—there are no integral systems of such events—that are not also psychical events and integral psychical systems. There is one evolution in both attributes—distinguishable, but nowise separable. There is not some stage of physical evolution at which correlation begins; there is no stage of physical evolution at which correlation is absent. Hence there are not two worlds—a physical world and a psychical world—but one world, psycho-physical from top to bottom.

It unquestionably follows from the acceptance of this acknowledgment that there is a correlated psychical system in the
atom, the molecule, the crystal, the bacterium, the fertilized
ovum—in every differentiated physical system, according to
its integral status in the evolutionary hierarchy. But of this
there is and can be no evidence. It lies beyond either proof
or disproof. For all the stuff and substance of a psychical
system is wholly intrinsic thereto. One must be a psychical
system in its integral entirety (no less and no more) in order
to "know" it in the only way in which it can be "known"
—immediately, by intuition, through enjoyment, or however
else it may be phrased. Sober science quite wisely ignores any
such perfectly useless speculation. Even sober philosophy may
well regard it as only an implication to such ubiquitous correlation
as Spinoza advocated.

Let it then be freely admitted that by most men of science and by the majority of philosophers such thoroughgoing correlation is not acknowledged. So be it. It is for them to work out their policy or their constructive scheme, evolutionary or other, on the basis of a different acknowledgment. This is not the occasion, nor have I the requisite space, to defend the thesis or to submit the dualistic antithesis to criticism. I am forced therefore to ask that it be provisionally entertained as one of the assumptions under which evolutionary continuity may be interpreted—e.g. the psychical continuity correlated (on this assumption) with the organic continuity of parents and children.

We may leave the implications with respect to the atom.

the molecule, the crystal, and the rest, on one side. The one psychical system that each one of us "knows" at first hand is that which he is, though he may acknowledge others. It suffices, then, to lay stress on the correlation of this psychical system with the physical system which he also is. This is the focal centre of acknowledged correlation. And here the feature which I am concerned to emphasize is that in which it differs from such correlation as was advocated by Huxley, which one may speak of as "restricted correlation"—that of psychosis with neurosis (Essays, ii. p. 158). Where does neurosis occur? In the sensorium. And where is that? In the brain. "The brain is the sole seat of consciousness" (vi. pp. 317, 258). I think the view is still not uncommon that the psychical system is the correlate of physical events in the cortex of the brain, and there only. That is the seat of the neuroses with which psychoses are correlated. The brain, it is said, is the "organ of mind." Such is what I have called the restricted form of correlation.

On the assumption of unrestricted correlation, here acknowledged, there are psychical correlates of all the physical and physiological transactions within the organism. There is no physico-chemical change in the living body the correlate of which is not, under normal conditions, integrated within the total psychical system that, when it reaches an assignable level, we call the mind. On this view the mind includes not only processes of experiencing, but all that is experienced in mental symbolism—as signs, for example, of occurrences in the external world as a physical system. Thus there are correlates of those chemical changes in the retina or the choroid which are the physical basis of colour vision no less than correlates of the transactions in the visual centre of the occipital cortex. If this be not grasped the whole purport of my acknowledgment of ubiquitous correlation will be misunderstood.

This only need be added: that, under such acknowledgment, there is, at no level, any interaction between the physical and the psychical attributes. There is one determinate evolutionary advance in both attributes. Ex hypothesi there is no lower

stage at which it may be said that psychical correlates do not count for progress; and there is no higher stage at which it may be said that physical events count any less than heretofore. Exigences of space force me to leave these Spinozistic statements thus baldly enunciated. Indeterminists will, of course, reject unrestricted correlation, and this implication thereof. They will develop their constructive scheme on other lines.

Our first acknowledgment, then, is that there is a physical world intrinsically existent apart from any perception or any human or sub-human knowledge thereof. Our second acknowledgment is that any given physical system is also, under correlation, through and through psychical. There is, however, as I shall urge, a third acknowledgment which completes the framework of the scheme of which I have been asked to give an outline sketch. It is, in brief, acknowledgment of relating and directive Activity of which evolution is the manifestation under the conditions of "space and time." To this I shall revert in the closing section.

H

A constructive philosophy, evolutionary or other, is bound to take risks. I take the primary risk of acknowledging "things"—i.e. clusters of physical events, regarded in abstraction from their psychical correlates if such there be. But what natural qualities does such a thing have? Those which are finally acknowledged are survivals under criticism, and must constantly be submitted to further criticism. It may be that much of what common sense naïvely assumes—and perchance not a little that current new-realism accepts—as intrinsic to the physical thing in its supposed existence independently of human or sub-human experience, is in some way extrinsically determined in relation to that experience, and should therefore not be acknowledged as proper to that thing in its own indefeasible right.

What do I here mean by "intrinsic" and "extrinsic"? Starting, as we all practically do start, with preliminary and

uncritical assumptions we provisionally accept at the outset all that we find as given, disclosed, or apprehended, in sense-awareness; we provisionally accept, too, the superstructure that reflective thought, embodied in common sense, has built thereon. We submit the outcome to more and more rigorous criticism; and finally, in the light of that criticism, we have to reject much that was provisionally accepted for common-sense policy at the start.

We probably find, as common to the phenomena we seek to interpret, relatedness. Under this I include what I may perhaps be allowed to call stuff and substance. Psycho-physical events are the ultimate stuff. But they go together in systems more and more complex as evolution advances. Such systems are relational. And the specific "gotogetherness" of events, which renders any given system what it is, I here speak of as its substance. On this understanding there are no natural systems within which stuff and substance may not be distinguished under analysis. But any sub-system may afford what may be regarded as a new and more complex kind of stuff which is integrally related in some more comprehensive system. Thus the stuff of the atom is, broadly speaking, electronic; that of the molecule, atomic; that of a drop of water, molecular; and so on in ascending grades until we reach those vital events in the cellular tissues which are the stuff of the organism. The substance of the organism, in this sense, is the total integral relation of its stuff; the substance of the drop is the specific kind of intra-relation which renders it the system that it is; the substance of the molecule is the set of relations of the atoms therein, and so on. Both stuff and substance thus exhibit ascending evolutionary grades.

In any such system I speak of the stuff and the substance within it as intrinsic. But when two or more such systems are inter-related I speak of the relation of one to the other as extrinsic. The distinction is partly, but not, I think, wholly, methodological. Revert to the atom, the molecule, and the drop. The stuff and substance are intrinsic to the drop, and wholly within it. But the stuff is molecular. And if we consider the relations

of the molecules inter se they are extrinsic to the molecules severally. So, too, the relations of the atoms are intrinsic to the molecule; but the relations of the atoms to one another are extrinsic to the atoms. I take it that this kind of treatment is in accord with the current procedure of science. The drop. the molecule, the atom, the electron, are successively taken as centres of attentive regard in the progress of research, as analysis is carried further and deeper. So far, therefore, the treatment is methodological. But if we acknowledge molecules, atoms, and electrons, to be independent of our conscious regard-i.e. existent in their own right severally-then this methodological treatment reveals, and does not in any true sense create the intrinsic nature. They are not cut out from a continuum by our interest; they are discrete entities for our interested research. It is clear, then, that, if we use the word "intrinsic" we must always qualify it by naming this or that natural system to which it is thus intrinsic-saying intrinsic to the drop, to the molecule, to the atom, and so on.

Now I shall urge that, in some given crystal, for example, its proper shape and size are intrinsic and are nowise dependent on its extrinsic relations to some other system, e.g. some percipient person, or, in Mr. Whitehead's phrase, some "percipient event." But what we call the visible or apparent shape and size stand on a different footing in so far as they depend on the extrinsic relation of an optical (photographic) or visual (retinal) record. In no optical or retinal record is the spatial relatedness intrinsic to it quite the same as the spatial relatedness intrinsic to that thing which gives the record. Since therefore vision is founded on retinal records, and since there is always extrinsic relatedness of record to that which is recorded, the doctrine that vision is a matter of direct apprehension, or disclosure to sense-awareness, affording immediate acquaintance with the own proper bulk and figure of that which is seen, stands in need of specialized methods of critical treatment. And if it should be found that, under specialized criticism vision cannot, save indirectly and as co-related with data afforded by contact-touch, lead to the acknowledgment of the intrinsic spatial relatedness within any given thing in the physical world, the further question then arises whether the colour, say, of a ruby, is intrinsic thereto—a quality that is to be acknowledged as all its own—or demands for its interpretation extrinsic relations to a retino-cerebral system. Here, too, the doctrine of apprehension or disclosure—naïvely accepted at the outset by common sense—stands in need of criticism at the hands, not of logicians only, but of those biologists and psychologists who are adequately equipped for the task—those, for example, who have spent some time in close touch with the very complex phenomena of vision.

I have laid stress on such specialized (evolutionary) criticism at the hands of biologists and psychologists because, as I think, this line of criticism has not of late years been prosecuted in England with anything like the vigour or the success attending that which has been directed towards the philosophical foundations of physics; and this notwithstanding the fact that modern theories of relativity are almost wholly concerned with retinal records, or with optical records which have to be interpreted through vision.

III

"A critical discussion of vision!" says the plain man; what is there to criticize? It is transparently obvious that through vision, as an inalienable prerogative of mind, we have direct apprehension of that which goes on in the physical world around us. Of course it may in some measure be subject to error: and against this we must learn to be on our guard, for example, through co-relating visual experience and touch-experience afforded by direct contact with things. What you mean, then, by a critical discussion of vision will presumably deal, not with direct apprehension through the instrumentality of the eye, which must be taken for granted and stands in no need of criticism, but with the occasional illusions to which, under abnormal circumstances, even the most perfect of our modes of sensory experience is liable.

That is not what I mean; at any rate it is far from all that

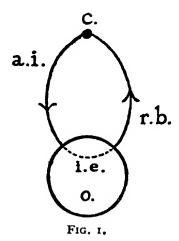
I mean. A critical discussion of vision goes much deeper. But it is not easy to present what I conceive to be the evolutionary position in brief but comprehensible form.

A good deal must be taken for granted as having, as I think, stood the test of philosophical criticism in order that we may carry that criticism a stage further. Given two things as systems of events with their several intrinsic relatedness, let one be a coin, and the other a photographic plate. Consider their extrinsic relatedness. Let us grant that the coin is a centre from which issue radiant events; and let us call it the centre of effluence. There is all-round distribution of radiant events; but there is an orderly passage of certain "selected" events through the lenses of the camera which have been specially arranged so as to give what we call an "image" on the plate. Let us speak of the events on reaching the plate as exercising influence thereon, and let us speak of this influence as advenient. Let us also grant that something happens on the sensitized film, and let us speak of this as a pattern of specific chemical change. Then this pattern, though extrinsically determined, is intrinsic to the plate. And if we may speculatively suppose that these chemical events are accompanied by a psychical correlate (let us say a kind of enjoyment appropriate to its evolutionary status) that enjoyment will be no less intrinsic to the system of the plate. There is passage of advenient influence, let us say electro-magnetic, from the coin to the plate. There is no such passage of specific chemical change or of its accompanying enjoyment, if such there be. These are wholly intrinsic, and only begin when the plate is affected. Nor is there any passage of physical events, as part of this story, in the opposite direction -from the plate to the coin.

Now substitute for the plate a person. Here the retina (or the choroid) plays the part of the sensitized film; the ancillary structures of the eye play the part of the photographic camera. Both are the outcome of long ages of evolutionary progress. Both (and how much else!) are involved in the purely physical basis of vision. Until both have reached a "critical" stage vision proper—as contrasted with preliminary and more or less diffused

sensitiveness to light—is not on the *tapis*. For the rest, the story is closely similar. The passage of influent events is from the coin to a sensitized receptor-surface. The changes therein are wholly intrinsic to the organism; and in the organism these changes, as such, begin. Effluence, advenience, nay, even influence in a sense, are beyond it. All that it *has*—is acquainted with, so to speak—is a receptor-pattern.

The behaviourist now takes up the story, which must here be condensed to the utmost. Given this, that, or the other, receptor-pattern due to advenient influence (of which it knows

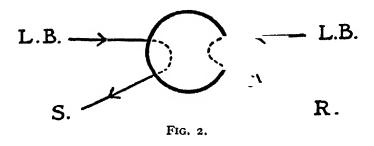


nothing) the organism responds in this, that, or another, way. It is a terribly complex business; but the gist of it comes to this: As the outcome of a prodigiously long evolutionary process, responsive behaviour is directed towards the source of physical effluence. To be elsewise directed would serve no evolutionary purpose. There is thus reactive response to advenient influence; this reaction is centred on the source of influence; and a "contact-pattern" of touch receptors may result. The point for emphasis is that the centre of effluence becomes through behaviour the centre to which response is directed and becomes also a centre of new modes of influence.

We thus get a closed curve which may be reduced to its simplest expression in a diagram, where c is the centre of effluence

and o the organism; where the arrow a. i. represents the passage of advenient influence, and the arrow r.b. the course of responsive behaviour. The curve is completed within the organism along the dotted line i.e., which stands for intervenient events.

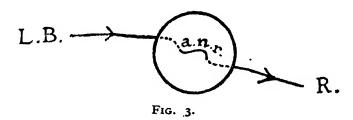
Here the physiologist takes up the story. He tells us, in brief, that when advenient influence gives a receptor-pattern, say, in the retina of a chick a few hours old, there follows an effector-pattern of muscular excitation, the outcome of which is a definite form of behaviour; and that between the one pattern and the other there is a passage of intervenient events along afferent nerves, through a complex neuronic route in the central nervous system, and along efferent nerves to the effector-pattern.



Apart, then, from detail, what is the salient feature? That the whole course of intervenient events, no matter what may be its bewildering complexity, is intrinsic to the organism. And if there be psychical correlates they, too, are no less intrinsic. Within the organism, and nowhere else, do these physicochemical and vital events occur; within the organism are the stuff and substance of the correlated psychical system. Beyond the organism neither does the one set of events nor the other extend.

A little detail, of no little importance in view of what is to follow, must now be introduced. We have seen that the centre of effluence becomes through behaviour the centre to which response is directed; becomes also a centre of new modes of influence. Revert, in illustration, to the chick that automatically pecks. Let the centre of effluence be a ladybird, on to which responsive behaviour is directed. The ladybird is seized. A

new receptor-pattern is afforded in the mouth. There is a new course of intervenient events; a different effector-pattern; and a quite different form of behaviour—that of rejection. Let us express this in a diagram. On the left-hand side of the figure, advenient influence gives a retinal receptor-pattern. There follow a course of intervenient events and a form of behaviour, S, the seizing of the insect. On the right, chemical influence in the mouth gives receptor-stimulation. On this there follow another course of intervenient events and a different form of behaviour—that of rejection, R. Initially the two sets of events are independent. And the sequence of one on the other might go on da capo on subsequent occasions—as in the case



of the moth that flies again and again into the candle-flame. But in the chick, as a matter of observation, it does not. On subsequent occasions the chick rejects ladybirds "at sight," as we say—that is, on receipt of the retinal pattern. How is this to be interpreted by the physiologist? Perhaps best in terms of just one more diagram, which represents the establishment of a central neurone-route (c. n. r.) which links the two courses of intervenient events. On the second or third occasion there may be incipient pecking, followed by rejection-behaviour, though the insect is not seized or taken into the mouth. This is a passing phase. Soon the S-response is suppressed; only the R-response is expressed in behaviour. Later both are suppressed. One cannot here tell the whole story.

The main point is the establishment of an acquired neurone route $(a \cdot n \cdot r)$ serving as a link between retinal stimulation of a certain pattern and rejection-response. This kind of thing is nowadays spoken of as the "conditioned response." Inter-

venient linkage is wholly intrinsic to the organism; any psychical correlates accompanying receptor-patterns (including those afforded by motor behaviour) and all intervenient events, are no less intrinsic. But a noteworthy evolutionary feature is that the responsive behaviour as conditioned—our R, for example—is what one may call *proleptic*. It is "preventive" in both senses of this word. It comes before an actual receptor-pattern in the mouth, and it provides for its non-occurrence. Herein lies its biological utility as a "critical" turning-point in evolutionary progress.

IV

What is the salient outcome of the foregoing section? It will be admitted that all receptor-patterns, visual or other, and all intervenient events, are within the organism. On the acknowledgment of unrestricted correlation it follows that within the psychical system, which is one with the physical system, are the psychical correlates of these organic events. These correlates afford the primary stuff of the mind as percipient; their de facto "gotogetherness" is the substance of the mind so far as such perception is concerned. The mind therefore is wholly intrinsic to the individual percipient.

The question then arises: How can this mind, intrinsic to the person, stretch out into the external world from which advenient influence comes? All may concur in the reply that it does so through conscious reference to things in that world which thus become objects for that reference. But in the critical interpretation of this reference there is a parting of the ways. Those who take one way urge (as I understand) that in reference to an object of vision the mind just gives back to it that which is received from it. Such is the nature of direct apprehension or disclosure to sense awareness. Those (or at any rate one of those) who take the other way urge that what is received is advenient influence only; that this produces a receptor-pattern; that this receptor-pattern has its psychical correlate; that this psychical correlate is a sign that has reference

outwards to the effluent source (the thing) from which advenient influence comes. I speak of such outward reference of psychic signs, arising within the psycho-physical system, as projicience (cf. Sherrington, Integrative Action of the Nervous System, p. 324).

Revert to the coin and the photographic plate. We acknowledge the coin to be a circular disc with its own intrinsic figure and bulk. From it, through the lenses of the camera, there comes advenient influence, and an "image" is formed on the plate the shape and size of which varies in a thousand ways according to the distance and the orientation of the coin, though intrinsic to the coin there is but one shape and size. Substitute for the plate a retina. *Mutatis mutandis*, what holds for the optical record of the plate holds also for that of the retina. Now introduce correlation. To each of the thousandfold "images" on the retina there answers a psychic sign. Of that sign, and of nothing beyond it, there is so-called knowledge by acquaintance. Under evolutionary criticism that sign is the "sensum," or "sense-datum," or "sensation."

Now I take it that a sign implies (1) reference to something that is signified, and (2) some difference, not only numerical, from that which is signified. This is exemplified by words which refer to, but nowise are, the things to which they are referentially attached. My contention is that this holds also for the psychic signs on which vision is founded.

The issue however is very complex, and the purport of my contention may well be misunderstood. So far as perception is concerned the position is that the *primary* stuff of a psychical system is not restricted to concomitants of events in the so-called sensorium, but includes also the correlates of receptor-patterns. This, however, does not imply that the correlation does not extend to the cortex. One may put the matter thus: If r be events in the receptor-pattern and s the sequent events in the sensorium, the suggestion is that correlation is not restricted to s, but includes r also. The primary correlation is unrestricted, i.e. is with r. s., not with r or s only. Of course, if one sever the connection between r and s one cannot have r. s. Here r

with its correlate is cut off from the psycho-physical system in its normal entirety.

The further suggestion is that the psychic signs primarily correlated with r. s. are projiciently referred to the source from which advenient influence comes. Now in vision r is a spatial pattern, and its psychic sign betokens a spatial arrangement in the object of vision. Retinal receptor-patterns have been specially differentiated in the course of evolution to that end in subservience to behaviour. The auditory pattern in the organ of Corti is no less spatial (with a very complex figure) in the frame of the organism. But the correlate of that pattern does not betoken a spatial arrangement in the object of audition. It is not a sign of space-figure. Such a sign in the case of audition (or of smell, or of taste) would be quite useless for behaviour. And that which is useless has not been evolved in the psychical system.

There must therefore be something other than space-figure, which serves to differentiate these patterns. They are not only patterns in space, but patterns of quality—of differential receptor-response within the pattern as a whole with correlated psychical qualia. A captious critic may cavil at the use of the word "pattern." I see no objection to its application to the aroma of a sip of coffee, or to a musical chord. At all events it is such a pattern (not a spatial pattern) that I regard as projicient on to the coffee I sip, or the quartette I hear.

Now, in vision itself there is not only the spread-out spatial extent, say, in a rainbow, there is also the colour-pattern. Of course this, too, is spread out, but I contend that it is not only spread out but also a pattern of colour-quality, analogous to the tone-quality of a chord. And this colour-pattern as a psychic sign is, as I hold, correlated with certain chemical changes in the retina and choroid, and nowhere else. It is there that the colour signs have their genesis; it is thence that they are projicient (not, of course, effluent) on to the rainbow as an object of vision. In brief, colour is the psychic sign correlated with certain specific events in the organism. Until

these specific events were evolved colour could have no existence.

There remains the distance-factor in vision. It is extraordinarily complex in evolutionary genesis; and of it this only can here be said. The psychic sign which betokens distance is primarily the correlate of a proprio-ceptor pattern of motor origin. Of course there is more than this—disparateness of the two "images," supplementary additions in terms of "meaning," and so forth. But this pattern seems to be the kernel, the psychic sign of which is the distance-factor in visual projicience.

The gist of the matter, then, is that differentiated receptor patterns of many kinds have their differentiated psychic signs -each after its kind-and that these signs are projicient in just those ways which subserve behaviour. It is behaviour that completes the curve of Fig. 1. No matter how richly amplified the details of that curve may be we have in it a frankly behaviouristic interpretation of what normally follows the incoming of advenient influence from some given centre-namely. the outgoing reaction of the organism to that centre. If, then, there be conscious reference (and this we may take to be commonly granted): if this reference play a part in the evolutionary drama (and this some behaviourists do not grant); such reference will be centred in that to which behaviour is directed. Projicient reference to the thing must coincide with a focussing of behaviour on that thing, otherwise no good whatever can come of it.

We have now seen how, on the acknowledgment of correlation, there is, in the primary genesis of the psychic stuff of perception a physiological basis which I have generalized in the expression r.s. When we pass to what may broadly be spoken of as representative imagery, the crucial question is: How can we interpret the representation of the psychical correlate of r, when no actual receptor-pattern, r, is stimulated through advenient influence? How can we interpret r' as an image which has functional utility of much the same kind as r itself? One seems forced to assume as nowise contradictory to the

physiological evidence—nay, as I think, supported thereby—that when the physiological changes in some specific s, which was primarily a factor in a specific r. s., are secondarily excited within the sensorium by some other specific r. s., its psychical sign is r'. s—where r' is the image, representative of r. It is, I think, because this secondary business is restricted to the sensorium that Huxley and others have urged that this holds also for the primary business of perception.

The foregoing statement is so terribly abstract that one must try to give a concrete illustration, as simple as possible. Let it be granted that we are in the field of the *conditioned* responses of behaviourists. Revert, then, to the teaching of Fig. 3. Here a connection is established between two courses of intervenient events, so that events on the one route are switched off on to the other route. We have seen that this provides for what I called "proleptic behaviour." Such is the frankly behaviouristic story.

Introduce psychical correlates; now we may speak of a "visual centre" and a "taste-centre," situate respectively on this route and on that. In the conditioned response these two centres are connected. Let the first course of events be started by retinal stimulation. The taste-centre on the second course is indirectly called into action. Events within it are centrally revived and not peripherally renewed. But these events were originally "ladybird events" for behaviour; their correlates were "ladybird signs" for conscious reference. So, too, their revivals are "ladybird events" for behaviour, and "ladybird signs" for reference. Revivals, no less than renewals under stimulation, have psychic signs which, if they be of any use, attach to something signified; and this thereby takes incipient form as the object of experience. And just as the behaviour-events under organic revival are proleptic and "prevent" the pecking response, so is the reference under psychic revival prospective and likewise "preventive" in both senses of this word.

We thus have, starting out from the "critical" turning-point of the conditioned response, not only a behaviouristic interpreta-

tion of biological events, but a psychological interpretation of that which lies at the very threshold of what we speak of as conscious guidance, namely, prospective reference to that which is coming, but has not yet come, under normal routine. The hall-mark of effective consciousness is that it forestalls the not-yet of the future. Furthermore, through behaviour visual signs and gustatory signs have common reference to one external centre for further behaviour and for perception. Carry this up further. The physical thing as a centre of effluence becomes also the centre of projicient reference—the object as perceptual construct. In us vision takes the lead. And we say that a piece of ice looks hard, and slippery, and cold, and so forth. But all these signs are within us, and, as I contend, are projicient on to the bare physical thing which has become for us the object signified.

V

A cardinal distinction has now come into view—that between (1) what is objective as a construct of psychic signs projiciently referred thereto so that it becomes, for perceptual experience, the object signified; and (2) the acknowledged, non-mental thing, intrinsically existent in its own right, wholly independent of any such constructive investiture, and yet constituting the skeleton which is thus objectively clothed with flesh and raiment.

But is there justification for any such distinction between physical skeleton and objective flesh and raiment? Some new realists urge that there is not. It is hard to state with suitable brevity the cardinal issue; and one runs grave risk of unintentional misrepresentation. Revert to the coin. It is, they say, a cluster of non-mental sensa which go together in orderly relatedness within the coin itself. That is what the coin is known as; that, too, is what it verily is. There is nothing of the nature of what I call projicience. The mind just apprehends this or that of the many figures or shapes as disclosed to sense-awareness. It contributes nothing to the coin as object of that awareness; it registers what the coin contributes

through the several sensory avenues. The coin is a construct in its own right, and as such it has all the shapes and all the sizes that are seen piecemeal from this point of view or that, from this distance or that. These are the phenomena—all equally valid under disclosure. By dealing with them and them only, subject to suitable scientific method, a policy of interpretation works admirably. There is no need for a physical thing supposed to be other than the phenomena, since they amply suffice for all scientific purposes. (Cf. Russell, Analysis of Mind, p. 98; Nunn, Proc. Arist. Soc., 1921, 2, p. 128.)

For us, too, the object is a construct; but the mind is a participant in its construction. It is this, I take it, that new realists are chiefly concerned to deny. The object, they say, is what it is and as it is irrespective of the mind to which it may or may not be disclosed in sense-awareness. The mind, in this regard, is just an interested onlooker. Whether, and if so in what manner, the onlooking mind is evolved we are not clearly told.

Now, for better or worse, in acknowledging correlation I seek to interpret the psychical system as evolved pari passu with the physical system of the organism. It is the psychophysical mind-body system that through behaviour and perception participates in object-construction. This follows from what has been said above, and I must not labour the position. But this may be added. For new realists the organism is the instrument the evolution of which affords a means of disclosure to the mind. It is this merely instrumental rôle of the organism that the correlationist on his part subjects to criticism. He urges that the mind is one with and inseparable from the organism—distinguishable only in attribute. And here new-realists and neo-idealists combine forces to criticize correlation. The outcome of criticism and counter-criticism remains, as I think, undecided.

My business here is to develop as best I can my own thesis. And part of that thesis is acknowledgment of the intrinsic reality of a system of things from which advenient influence comes in such wise as to stir the psycho-physical system to response in behaviour and to generate psychic signs projicient

on to the thing which thus becomes an object. It remains therefore in this connection to indicate briefly the line of approach which leads to my acceptance of this acknowledgment.

The difficulty, as I see it, is to pass from that which is intrinsic to one's own physical system to that which may be acknowledged as intrinsic to some other physical system, say that of the coin. The avenue of approach is, I think, through contact of one with the other.

If we submit our contact-data, given in a tango-receptor pattern to analysis—say, in the matter of spatial relatedness -we find no essential difference in the outcome from that reached by a similar analysis of the receptor-pattern of the "image" on the retina. The difference lies, not in the intrinsic relation within the pattern, but in the extrinsic relations of the pattern, as record, to that which is thereby recorded. Let the coin be a threepenny bit, to which the palmar surface of my middle finger is applied. Analytically distinguish any two "points" in the touch-pattern on the fingers which have the maximum distance-relation. Then these two points are so spatially related as to give that distance as intrinsic to a pattern in my physical system. But these two points are in contact with two points intrinsic to the coin, and give a distance within its physical system. We thus pass from points and their distance intrinsic to my system, to points and their distance intrinsic to the coinsystem, through the superposition of record on that which is recorded. But we have to acknowledge that through superposition a point on my contact-record is positionally the same as a point on the coin. In strictness, however, they are not the same. All that we can say is that they fall within so small an area that we may without risk of serious error speak of this minute area as common to both systems. Hence there is some measure of acknowledgment going beyond the evidence.

Now deal constructively with all the data thus distinguished piecemeal in analytic treatment. The resulting construct gives the acknowledged figure and bulk which we accept as intrinsic to the coin. We may then employ the diameter of the coin as a "measuring-rod" for ascertaining the like spatial relation

intrinsic to any other system on which this "rod" may be superposed. On such procedure (if we may co-relate indivisible distance with divisible length) all measurement, it may be urged, is ultimately founded.

But why, mutatis mutandis, do we not get a like result through vision? Because, in vision there is no such superposition of record on that which is recorded. Because our vision is founded on distance-receptors with lens intervention. Furthermore, it is part of our acknowledgment, not only that under contact the measurable length a b in the record is the same as the length a' b' in that which gives the record, but that the orientation of a b is that of a' b'. On the former count this is never so in vision. since the distance of points on the retinal pattern is always reduced through the office of the lens. It is seldom so on the latter count, since there is foreshortening when spatial direction in the thing differs from that in the retinal record. Hence the elliptical figures in retinal or optical records of the coin in accordance with its orientation. It is noteworthy that events in the retinal record are never physically simultaneous with those in the effluent source.

Let me put the heart of the matter thus: In a contact-record of an event the several point-instants, as items of stuff, are very nearly co-incident and simultaneous in the event recorded and in its record. This is not so in the visual record of an event regarded from the physical point of view. In other words, in the contact-record, as contrasted with the visual record, the factor of relativity is reduced to a minimum.

VI

In what I now venture to call emergent evolution the emphasis falls on that which nearly thirty years ago I spoke of as "selective synthesis" at certain "critical" turning-points in the course of evolutionary advance. The expression "selective synthesis" being ambiguous, it seemed better to drop it and try to find some other. G. H. Lewes's word "emergent" appeared to be suitable; but as qualifying "evolution" it is

not wholly free from ambiguity. For the word "evolution" itself is ambiguous. In the older sense it meant the unfolding of what is already in being, but enfolded. In that sense emergence is the coming into view of that which has hitherto been submerged-virtually there, but hidden; latent, and not as yet patent. Nowadays the word "evolution" has supplanted the older word "epigenesis," and means the coming into existence of something in some sense new; and this something new, in a specialized sense, is what Lewes labelled "emergent," as contrasted with "resultant." The emergent, he claimed, is unpredictable before its de facto epigenesis; the resultant is calculable (by some Laplace) before the event, on lines analogous to the so-called "parallelogram of forces." On these terms emergent evolution is on the one hand through and through naturalistic; but, on the other hand, it embodies a protest against a mechanical, or so-called mechanistic, interpretation. For that is based on resultant treatment only, and is, we urge, insufficient in view of the course of natural events.

To these preliminary considerations this should be added. Naturalism as such is openly and avowedly agnostic in the philosophical sense. What we find in nature, physical and psychical, is accepted as we find it—accepted in Mr. Alexander's phrase "with natural piety." For modern science, I take it, the rubric of causation runs: Given such and such a describable field of relatedness, and such and such natural entities therein, likewise describable, something happens. The business of science is to give the law, or, if possible, a formula under which such happenings in this or that field may be subsumed. Through what Agency, or by what Activity, it happens science, in so far as naturalistic, does not say; and it should express no opinion, but preserve (if possible) the agnostic attitude.

These preliminaries over we can proceed on our way. Trace briefly the course of events which lead, for example, to the formation of a crystal. What is salient may be thus set down.

(1) Certain electronic stuff is in substantial relatedness within sundry and various atoms; (2) some of these atoms selectively form the stuff of certain molecules under a new kind of sub-

stantial relatedness; (3) atoms and molecules are the more complex stuff of the crystal; again under a new kind of substantial relatedness. Resultant re-arrangement, with additive constancy (susceptible of "mechanistic" treatment) runs through the whole process, and gives its own type of continuity. But it does not afford-no resultant treatment can afforda sufficient interpretation of atoms, or molecules, or crystals; for it disregards the supervenience of a new kind of substantial relatedness—to be accepted with natural piety—at each "critical" stage in the ascending course of events. Each atom, however, after its kind, and each molecule, and each crystal, has intrinsic and specific qualities—spoken of as constitutive—which express its substantial nature. These new qualities we speak of as emergent. We question whether they could be predicted before the advent of any instance of their occurrence—i.e. predicted from the data afforded at the level below that at which in due course they emerge. Why, at the "critical" moments of change, new kinds of substantial relatedness are superveniently epigenetic, naturalism does not pretend to say.

Regard now the world at large from a much more comprehensive point of view. We find (1) an array of physico-chemical events; (2) an array of vital events which occur only in organisms; and (3) an array of mental events which occur only in some organisms—those which we commonly speak of as conscious. Our contention is that in vital events there is a new kind of relatedness that does not obtain at the lower level of physico-chemical events; and, in mental events, a further kind of relatedness that does not yet obtain in vital events as such. Each kind of relatedness is, as I have put it, substantial and the basis of integral unity. We speak of vitality as an emergent quality of organisms; and perhaps of mentality (not, of course, in the journalistic sense of this much-abused word) as an emergent quality of persons, such as we ourselves are, and of some animals. But vitality or life, and mentality or mind, are, for naturalistic treatment, group-names only. They stand for emergent qualities which need some such names.

One must be content with a bare statement of the position

with emphasis on the concept of emergence. But even at the highest level of emergence we have not left resultant mechanism behind. Mechanical resultants, however, are quite insufficient to account for the genuinely new at these or any other levels of evolutionary advance.

Space does not permit of more than a brief indication of the way in which what many will no doubt regard as an insuperable bar to the acceptance of such a constructive scheme is met on the basis of acknowledged correlation. Set down the progressive advance from (a) the physico-chemical, through (b) the vital, to (c) the mental. The chief bar to its acceptance is the prior acceptance, under the influence of long tradition, of the radical dualism of body and mind. According to dualism the body, as an organic system which is part of the physical world, belongs to an order of being quite disparate from that of the mind. These two orders are utterly diverse and are separated in the very essence of their being by an impassable gulf. At best they can co-operate at "solidary" foci of seeming intersection. But, it will be said, the scheme under consideration ignores this gulf, or leaps it in a manner that philosophical criticism easily shows to be quite illegitimate.

Under the acknowledgment of correlation, however, there is no gulf—unless it be said that physical events in the organism which are also psychical events in the mind are irretrievably separate; and this is merely a re-statement of the counteracknowledgment of their disparateness in order of being. We are in presence of antithetical acknowledgments—neither of which is susceptible (as I hold) of positive proof or disproof.

Both parties to a long controversy urge that, however it be phrased, our acquaintance with the physical and our acquaintance with the psychical are severally gained in quite different ways. But neither party can, on any such basis, prove either (I) that the physical and the psychical are irretrievably disparate, or (2) that there is one indivisible psycho-physical organism with a distinguishable difference in manner of acquaintance with events therein. One acknowledgment or the other is accepted as something so utterly true as to lie beyond mere

proof. Entertain, then, at least provisionally, our acknowledgment of unrestricted correlation, so as to stand for awhile, if possible, in our speculative shoes. How does the scheme then work out?

Although it is convenient to use the word "correlate" for the psychical attribute (to adopt Spinoza's word, which is less ambiguous than "aspect"), it is clear that we may, on equal footing, speak of the physical correlates of psychical events. The scheme then stands thus:

- C. Mind (with its physical correlates);
- B. Life (with its psychical correlates);
- A. Matter (with its psychical correlates).

The point for special emphasis here is that in passing from B to C we openly and avowedly leave the one attribute of psychophysical reality to take up our position in the other. We cross no gulf, for the reality we deal with is indivisibly one. But we do pass from one kind of acquaintanceship with this reality to the other. On this understanding that which lies within brackets is accepted under acknowledged correlation. It is there in natural reality; but it is so to speak out of focus in this or that kind of acquaintance with attributes. Furthermore, what lies in brackets in each case is a matter of acknowledgment—i.e. part of a constructive scheme. No constructive philosophy can build without foundations—assumptions, presuppositions, or however they be named. These lie in a region beyond positive proof or disproof. We can, as I think, prove neither (1) that there are physical correlates of all the mental events with which we are acquainted through Bergsonian "intuition" or Alexandrian "enjoyment"; nor (2) that there are psychical correlates of all the physical events which run their course within our bodies. That is just where acknowledgment on the constructive scheme here outlined comes in. In the departmental work of the several branches of science there is no need for it. Hence psychology, in its strictly departmental work, may, and often does, so far as may be convenient for the purpose in hand, ignore all physical correlates; and biology, as in radical behaviourism,

can ignore all psychical correlates. But the professed aim of a constructive philosophy of evolution is to work out a scheme which includes both the physical and the psychical attributes of nature regarded as foundationally one and indivisible. M. Bergson's constructive scheme is quite different, and assuredly does not lack brilliant advocacy. But I am here concerned to present, as best I can, not his scheme, but another.

Many pertinent questions with regard to the concept of emergence, subject always to correlation, will no doubt arise. One only can briefly be considered. It may be asked on what evolutionary grounds the name "mind" is specifically applied to a quality at an assignable level, and why the system so "qualitied" is spoken of par excellence as "a mind." Should we not, if ubiquitous correlation be acknowledged, speak of the "mind" of an atom, of a molecule, and so on, each after its kind, and perhaps with Fechner, of the mind of the worldi.e. of any integral system, as such, in its psychical regard? Mr. Alexander does broaden the connotation of the word in some such manner for the purposes of his exposition. But he has to safeguard his position by saying, in effect, that he uses the word "mind" in at least two quite different senses. This is only too apt to lead to trouble and confusion. It is better, then, to reserve the word "mind" for that which characterizes a distinguishable level. But if so, it must, as a quality, have some distinguishing criterion. What is it?

To this question my own reply, which, of course, needs elaboration that exigencies of space here preclude, has already been given in Section IV. What we seek is a "critical" turning-point in the advancing course of events. What we find, in interpreting the evidence afforded by the "conditioned response," is provision for conscious anticipation, under revival through acquired neurone-routes, of events that have not yet come by extrinsic influence, e.g. the representative taste-sign of the ladybird before the taste-receptors are actually stimulated. This, I submit, is, at its inception, such a "critical" turning-point as we seek. It is indissolubly psycho-physical; physical, in so far as it provides for "proleptic" action in behaviourist

interpretation; psychical, in that it provides for "prospective" reference. The suggested criterion of mind therefore is prospective reference to that which has come in previous routine, but has not yet come in the given instance of routine; and guidance in accordance with psychic signs which forestall the events to which they have reference.

VII

In accordance with the emergent plan new kinds of relatedness are supervenient at successive levels of advance, and are accepted on the evidence with natural piety. And the expression of their presence is, in each case, a new intrinsic quality, or set of qualities, and new extrinsic properties due to the interrelations of different systems. But when the new comes, the old does not go. The new supplements the old without superseding it to its annihilation. Hence an integral system which reaches the level of mind does not get quit of its vitality; nor does an integral system of vital events cease to be also a physico-chemical or material system. One may say, then, that the inherent plan of natural events is such that there is a vital basis of mind and a physico-chemical basis of life. As I phrase it, mind always *involves* vital events, and life *involves* material events.

But the manner in which vital or organic events run their course when mind relatedness is present is different from that in which they run their course when it is absent. And the go of physico-chemical events in the living organism is other than that in the dead thing wherein life-relatedness no longer obtains. I take it that there is nothing in these statements which is contradictory to the evidence. I speak, then, of the new manner of go of lower-level events in presence of some higher kind of relatedness as dependent thereon. Thus life "involves" certain specific physico-chemical events—just what events it is for men of science to determine; but the way in which these events run their course "depends on" the substantial relatedness of the vital order, whereof the quality of life is the expression.

Just how they go, as dependent on life, it is for men of science to determine. Here, again, there is, I submit, nothing contradictory to such evidence as Dr. J. S. Haldane, for example, has adduced in the course of his illuminating researches.

With regard, then, to an integral system at some given stage of evolutionary advance involution carries our interpretative thought downwards to lower kinds of relatedness which still obtain though in a form that is modified by some higher kind of relatedness. Dependence carries our thought upwards from lower levels to this higher kind of relatedness in presence of which the course of events is so modified as to run in directions that are observably different from those which are followed in its absence. I do not think that there is here anything other than an expression of the generalized outcome of scientific or naturalistic treatment.

As will, I suppose, have been sufficiently obvious, I accept fully and frankly the most thoroughgoing naturalism in the field of science (as I should characterize science), which includes the psychical no less than the physical attribute of natural reality. I accept all that I find with natural piety. What I find is a progressive supervenience of new kinds of relatedness in accordance with an orderly plan. At every stage of advance I find increasing complexity of stuff and richness in substance. At each stage I find something new in the direction of the course of events. The emergent kinds of relatedness, the "critical" turning-points in the advance of nature, the new directions observed, seem, on the evidence, just to come when the intrinsic ground within any system and the extrinsic conditions in relation to other systems are ripe for their advent.

That as I see it is the naturalistic position. On some such terms as these, better expressed and suitably elaborated, scientific policy is, I think, eminently successful. What more, then, can one want? Those who seek to formulate a constructive scheme, have, throughout the history of philosophy, wanted something more. Then What? Something of the nature of a relating and directive Activity of which the *de facto* relatedness and the observed changes of direction (with which science is con-

cerned) are the manifestation. I use the word "Activity" in this sense as the most non-committal name I can select. I write it with a capital letter to differentiate the concept as other than naturalistic. I speak of manifestation because I have often used the word "expression" in a naturalistic sense. I frankly accept Activity under my third acknowledgment—one that supplements, but is nowise contradictory to the concepts of naturalism in its accredited domain.

Those who accept it in some form or other fall into two schools. The teaching of one school is that Activity is inserted into nature at this, that, or the other "critical turning-point" of evolutionary advance—say, at the level of life, or of mind or (with Descartes) of the rational soul. The teaching of the other school, in which I serve, is that Causality (which I should distinguish from the naturalistic causation adverted to above) is the universal operation of Spirit manifested everywhere and everywhen-not only at the level of life, or of mind or of reflective consciousness. There is for us one immanent Causality. of which the whole course of evolution affords diverse manifestations. On these terms the scientific concept of evolution, as epigenetic, may be supplemented (not superseded) by the older philosophical concept of the progressive unfolding sub specie temporis of revelations of that Activity which is universally enfolded sub specie æternitatis.

But though it is sufficiently non-committal, the concept of Activity is terribly bare and featureless. If, however, we try to bring into relation the naturalistic concept of dependence and that of Activity on which the course of events is Dependent from bottom to top (and beyond if there be further evolutionary advance subject to conditions of time) the latter concept is not the poorest, but the richest of all—rich with a transcendent richness beyond our present grasp.

The space allotted to me is more than exhausted, and I cannot here develop the position thus scarcely more than hinted—a position which naturalists pur sang will assuredly reject. Perhaps, however, I may be allowed to add a few sentences.

My colleague, in developing an emergent scheme-Mr. Alexander, to whom I owe so much-speaks of a nisus towards "deity" which is in us the highest emergent quality that has as yet been supervenient on lower qualities. It may not at first be clear in what respect this "nisus towards" deity differs from the de facto "evolution of" this quality. That it does differ seems to be shown by such a statement as: "The nisus is felt as a nisus toward something unattained." And this something unattained is deity in the widest sense—i.e. in any given entity which has a felt nisus towards its unattained goal. Deity in this wide sense (not only deity as a quality in some human folk) is, we are told, "the characteristic quality of the next highest level of existence prophesied by the nisus of the universe which has created "the whole emergent series. Moreover, "the nisus of the whole is shared at any moment by everything within it." Now that which is unattained is from the naturalistic standpoint as yet non-existent, though when the emergent quality of reflective consciousness has been reached there may be anticipation thereof. It is just here that I have difficulty in grasping Mr. Alexander's position. So far as I do grasp it I cannot rest satisfied with it. I want something more. Hence my further acknowledgment of Nisus (with the capital letter) of which the de facto nisus is the emergent manifestation?

With Mr. Alexander's emergent treatment of values I am largely in sympathy. But just as at the naturalistic base of things there is involved a space-time frame, so, too, as I conceive, there is as foundational in Spiritual Reality what I may perhaps call a Value-frame. And just as I acknowledge the space-time-event system as real quite independently of human knowledge thereof, so do I conceive the Values to be Real independently of the human folk who are influenced thereby. In other words, just as we do not make space-time-events, though they go to our making, so, too, as individual persons, we do not make Values, but are made by them.

One last attempt to envisage the position from a slightly different angle. We are nowadays told that under critical

treatment one must dig down to logic as foundational to all interpretation. We are also told, as I understand, that propositional functions are in a valid sense timeless, though instances come and go as the stuff of our current experience. That Activity which I acknowledge is Logos, of which the evolutionary process, logically interpreted, is the manifestation. In fine, what I am striving after is a constructive scheme which shall provide for a physical realism as the limit of involution, and something of at least the same *genre* as Platonic Realism, and the superstructure which since his day has been founded thereon, as the limit of Dependence.

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PAST AND PRESENT IN CONTEMPORARY PHILOSOPHY

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PAST AND PRESENT IN CONTEMPORARY PHILOSOPHY 1

WITH the writing of the Preface to this book the office of the editor might have ended and I might have been content for the rest to leave the proper dramatis personæ to speak for themselves. My only excuse for adding to it a separate article on my own account, or indeed for appearing in any capacity in such a company, is that I happen to be one of the few now surviving whose life, as a student of philosophy, has on the whole coincided with the great movement of thought in our own country of which the writers in this book are the chief representatives, and which I may be said not only to have "contemplated," but "enjoyed." This gives me the advantage of being able to speak at first hand of the sources of the movement, and tempts, if it does not qualify me, to try to give some estimate both of its achievements and its limitations in so far as it may be taken as one continuous whole.

In the early 'seventies, from which my philosophical memory dates, British thought may be said to have been in the full tide of revolt alike against the common-sense philosophy of Reid and Hamilton and the sensationalism of Mill and Spencer. The pioneers of this revolt belonged, indeed, to an earlier generation. It was a profound discontent with the popular philosophy of his own country that had driven Coleridge further afield to find a metaphysic that could explain and justify the work of the poetic imagination. Already in 1827

What follows, as I have already explained in the Preface, was originally intended as an Introduction to this book.

his younger contemporary Carlyle had recognized the Critical Philosophy as standing "in respect of its probable influence on the moral culture of Europe on a line with the Reformation." I Two decades before the one I am speaking of Hutchison Stirling had declared of German philosophy in general and Hegel in particular: "These books are not understood in England, yet require to be understood before any advance is possible," and had set about his long wrestle with the "Secret of Hegel." But it was in the years I speak of that German Idealism began to find a home in British universities and may be said first to have learned to speak to English students in the dialect of their country. There were, of course, die-hards of both of the older schools, but most of the younger men, in Oxford, at least, were, I think, committed more or less to the new ideas. Ardent "Hegelians" from Glasgow met men in Balliol imbued with the more cautious and critical spirit of Green and Nettleship. There was, indeed, a difference in these two currents that went deeper than temperament and training, corresponding roughly to the Kantian distinction between the ideas of the Reason and the categories of the Understanding. While the emphasis in Caird's teaching was always on the ideal unity of all thought and experience, the emphasis in Green tended to fall rather on the working relations by which finite thought carries on its work and on what seemed to him to be implied in this relating activity.2 But the doctrine and method of each dovetailed into that of the other, and there was no mistaking the general trend of their teaching.

Neither the teaching itself nor the criticism of the prevalent associationism which it carried with it was, as I have already said when the England. I do not think that there is a point in the Idealism of the 'seventies which was not anticipated, perhaps even better expressed than it has ever been

Miscellaneous Essays, vol. i, p. 66.

The general difference of outlook and atmosphere which we experienced in those days when we passed from Caird to Green will best be seen in the latter's criticism of John Caird's Introduction to the Philosophy of Religions. See Works of T. H. Green, vol. iii, pp. 138 foll.

since, by Coleridge in one place or another of his multifarious writings. What was left to the generation I am speaking of was to familiarize students of philosophy by translation and commentary with the work of Kant and Hegel, and by systematic exposition to complete the work which Coleridge had planned but had let drop from his hands. It was for this reason that with the publication of Green's Introduction to his edition of Hume's Treatise of Human Nature (1874) and Caird's Kant (1877) a new era seemed to open for British Philosophy.

This "second Oxford movement," as it has been called, while going much deeper, and of a far wider range than the first, had many points in common with it—not least its rapid and phenomenal initial success. There were several reasons for this. One undoubtedly was the exceptional ability of the men who led the movement and who impressed their contemporaries not only by the extent of their scholarship but by the weight of their character and practical experience. If it is true that a man's philosophy is influenced by his own character and temper it is equally true that it is influenced (and even more profoundly) by the character and temper of his teachers. Another and a more important reason was its essential harmony with the deeper spirit of the time. It seemed to provide a philosophical basis for the profound change which for the last half century had been passing over the spirit of the nation and had already expressed itself in new forms of poetry, new canons of literary and æsthetic criticism and new methods of political reform. We shall wholly misunderstand the meaning and significance of the Idealism of the 'seventies if we fail to take it in connexion with the whole Romantic movement of which it seemed to be at once the justification and completion. It is not too much to say that it was its relation to this and the light which it threw upon all that was best in the literature and life of the time that was the real source of the influence of its teaching upon the mind of the generation of which I am speaking. Its critics and opponents had to reckon with no mere academic theory

but with the vital spirit of an era in the history of the nation.

But the very success with which the new philosophy for these reasons met brought its own dangers with it. There was the danger that what to the leaders was a great hypothesis which might be made the starting-point of fresh speculation in logic and metaphysics, ethics, politics and religion, should be accepted by others not as the beginning but as the end of philosophical culture. Connected with this was the even more fatal danger that its formulæ, in becoming the common property of unspeculative minds, should be exploited by them in the interest of established dogma. Philosophy at all times, like science, has had its roots in man's practical needs. To try to sever it from these is to cut it off from the springs of its life. For my own part I find it difficult to understand the mentality of those who would discount a mode of philosophizing because of its harmony with fundamental human instincts or because it enables you to interpret the deeper spirit and assimilate what is of essential truth in the greatest of human traditions. But so far I agree with the critics of the Idealism of that time that it is one thing to seek a justification for fundamental human instincts and to find basal truth in the forms in which they have expressed themselves; it is quite another thing to import the spirit of apologetics or of edification into philosophical discussions.

From these dangers the Idealism of the 'seventies was in the main rescued partly by its own inherent speculative energy, partly by the genius of particular writers. Not to mention others among the contributors to this book, the essays that follow witness throughout to the influence which Mr. Bradley has exercised on the philosophy of our time. The movement of his thought as it passed successively through the stages represented by the Ethical Studies of 1876 and the Principles of Logic of 1883 to that of Appearance and Reality in 1892 raised issues which have engaged all schools of thinkers in England and America for the last quarter of a century. It not only challenged doctrines that to the older Idealism had seemed fundamental, but by the violent reactions it called

forth rekindled latent fires of Empiricism and Realism that threatened its whole basis.

The course which these several movements have taken is familiar to students of philosophy. It represents a veritable "resurrection of metaphysics" in this country. Its story is that of the progress of the thought of a whole generation. I have no intention of following it here. My interest is with the course and general outcome of what I venture to regard as the main stream of that development. Taking the movement as a whole, alike in the affirmations with which it started and the subsequent reactions against them, can we say that any definite position has been won from which further progress may be made? If we seem justified in saying so what precisely is it? What remains further to secure it? On what lines may we expect that future advance will be made, and what are the conditions of such an advance?

I believe that the time has come when these questions may without undue presumption be put and a plain answer to them attempted. I believe that the movement initiated by the men of the 'seventies and 'eighties stood for a principle which is fundamental to philosophy, and that as the smoke of the battle that has raged over it for the last quarter of a century clears away this will become increasingly manifest. But I believe also that the implications of this principle, as well as the terms in which the nature of the ultimate reality, to which this principle points, is to be defined, are extraordinarily difficult to determine. Nevertheless, here, too, certain negative results at least are becoming clear as to the direction in which light is to be sought for on these further questions. Apart from these fundamental metaphysical problems there is an open road for progress in the detailed application of the central

while I think it is true to say that in America the New Realism, equally with Pragmatism, had its origin in a reaction against monistic tendencies in British Idealism (see *The New Realism*, 1912, pp. 1 and 17, and cp. *The Will to Believe, passim*, 1897), the corresponding movement in England and particularly in Cambridge owed too much to Henry Sidgwick and was too much in harmony with the prevailing spirit in that University in these years to permit of so simple a derivation.

[•] The title of Dr. Peter Wust's interesting book on recent philosophy.

principle in the different departments of philosophy. Of these departments perhaps the most difficult—certainly that which in the immediate future is likely to attract a much larger share of attention than in the past—and yet that for which the training of at least one large group of students of philosophy very inadequately prepares them is the philosophy of Nature. For this reason, at least one of the ways in which the present generation can contribute to progress is by endeavouring to secure for its successors a broader kind of philosophical discipline in preparation for its task. The limits of such an article as the present permit only of very condensed observations on these different heads.

I. To make clear what is central in the movement of the 'seventies it is necessary to dissociate it altogether both from the Idealism of Berkeley and Hume, and from the various forms of "New Idealism" in vogue at the present time. The essence of all these types of doctrine is the denial of the reality of any permanent object to which our experience can be said to give us access—anything that is the same amid passing events in the external world or in ourselves. Otherwise put, it is the denial of any power in us to transcend the particular moment in the recognition of an object that passes beyond it and in this sense is universal. Going along with this there is the a fortiori denial of any permanent inclusive totality-any universal of universals—that can be said to be revealed to us in our particular experiences. Instead of this denial of all transcendence what the movement of which I speak stands for was the recognition of the reality of the universal in both these senses: (a) There are real objects in the world, permanent, self-identical entities, which give coherence and meaning to our passing experiences; (b) There is a real Whole or coherent system of such entities, their felt relation to which is that which gives meaning to the fragmentary experiences of finite minds. This Whole, it was further held, includes Nature and Spirit in such a way that neither can be resolved into the other, but that each may in its own way, though in different degree, be recognized as real. It includes, finally, as part of itself a

time process or history, only truly to be understood as the progressive revelation or "communication" to Spirit in the race and in the individual of its own nature in its fulness and truth.

In developing this thesis Idealism (if that is the proper name for such a doctrine) claimed to be in line with the great classical philosophies from Plato to Hegel. What was central in all of these was the logical priority in human experience (theoretical, moral, æsthetic and religious) of the idea of an order or perfection that goes beyond and supplements the fragmentariness of its time appearances under whatever name this order may be known—that of "the Good," "Reason," "God" as in ancient philosophy, that of the "Infinite," the "Causa Sui," the "Absolute" as in modern. It was indeed the argument from history, as developed particularly by Caird, that so powerfully impressed those who came under his influence. Among other things it seemed to furnish an answer to the accusation of unprogressiveness so constantly brought against philosophy. What has been becoming progressively clear throughout this long history is the precise point in mental life at which this principle manifests itself and the continuity between the various levels of human experience which is established by it. What seemed to be chiefly henceforth required was to carry this central principle into all departments of philosophy and use it as a key to a detailed reconstruction of them. How brilliantly this work was begun in Ethics and Politics by Green and Bradley, in Logic and Metaphysics by Bradley and Bosanquet is now an old story. The more we realize what these writers accomplished the less one wonders that their work seemed to us in the 'eighties and 'nineties to be a fresh and convincing verification of the truth of the idealistic hypothesis, on which it was founded.

It was, of course, just this central principle which was the object of attack in these same years by the opposite schools of Pragmatism and Neo-Realism. But looking back from this distance it is doubtful whether the men who led the attack from either side really understood the position they were assailing, while it would not be difficult to show that these theories themselves, so far as they aimed at offering alternative philosophies

were in reality assuming the existence of just such an "objective control" coming from the ideal of a consistent world of thought and experience as they sought to disown. Be this as it may, I believe that idealists were essentially right in these days and that when the din of the alarums and counter-alarums that has filled our ears in the interval dies away it will be found that a position has been gained from which confident advances may be made.

2. So far, however, critics were justified that the precise form and implications of the idealistic doctrine were left by its leading representatives in considerable ambiguity. Granting that Bradley's Logic and Metaphysic were a verification of the hypothesis, the verification (as Idealism itself teaches) is also a moulding of a theory, and there were those to whom the moulding in this case appeared with some justice to be little short of a total transformation.

The time fortunately is not yet when a general estimate of the work of the most original writer of our time is possible. We are concerned here with the single point of its relation positive and negative to the central contention of Idealism as I have defined it. Even in respect to this I am compelled to speak far more summarily and dogmatically than the subject deserves.

On the positive side perhaps there can be little doubt as to where we have to look for Mr. Bradley's contribution to idealistic theory. We owe, I believe, to him the clearest statement in modern philosophy of the different values that attach to different levels of experience—the doctrine of degrees of perfection, or, in his own language, degrees of reality. It has been said of the older teaching, as represented by T. H. Green, that it "allowed too small an interval between experience specifically moral and specifically religious, and again between human experience and perfection." With certain reservations 3 I think that this on the whole is true, and that the

See, e.g., Pragmatism, p. 233; New Realism, p. 366; and cp. Bosanquet's Three Chapters on the Nature of Mind, esp. p. 143 foll.

Bosanquet, Aristotelian Society Proceedings, 1901-2, p. 43.

³ See, for instance, what Green has himself said in his Works, vol. iii. p. 145 fin.

extension of the scale and the recognition of the intervals, which may now be said to be the common property of idealist writers, is chiefly the result of Mr. Bradley's work. The doctrine of degrees of reality ought not, of course, to have been new to us. It was staring us in the face in Plato and Aristotle, not to speak of Spinoza and Hegel. Mr. Bradley's real service was to have opened our eyes to see it there.

On the negative side, on the other hand, the result has been different. In so far as Mr. Bradley's dialectic, while vindicating the reality of the Absolute as "a single all-inclusive experience which embraces every partial diversity in concord," seems to convict the several elements or levels of finite experience—including self-conscious experience—one and all of internal inconsistency, it may, I think, be said to have met with almost universal dissent among younger writers otherwise in sympathy with idealistic philosophy. I can only state in the shortest way the ground of this dissent with which I find myself in general agreement.

The war against dogmatism and prejudice that has inspired the whole of Mr. Bradley's later work is the very life-blood of philosophy. But the dogmatism it seeks to shake is not that which asserts the reality of the separate elements of experience but that which asserts their separate reality. The way of attack upon this is to force into prominence, as no one knows better how to do than Mr. Bradley, the idea of totality and the necessity of taking things in their continuity and togetherness. Only so can we escape the contradictions in which all half-truths when taken for the whole necessarily involve us. To attempt any other way, as for instance by seeking to prove internal contradiction (if it is possible to attach any clear meaning to such a phrase), is to become entangled in the very abstraction which it is sought to expose, and can only end in a scepticism as dogmatic as the gnosticism that is attacked. It is this point that has been seized upon by the acutest of Mr. Bradley's critics of every school. It was anticipated by Caird when, with all his deference to Mr. Bradley's metaphysical genius, he suggested that such a use of dialectic must in the end be suicidal. It is the

¹ Life and Philosophy, p. 188 foll.

truth that underlies the opposite paradoxes of Pragmatism, and attacks such as that of Mr. Russell from the side of Realism on a doctrine which seems to imply the necessary falsity of every stateable truth. It has been worked out with his usual insight and force by Professor Stout in his criticism of the alleged self-contradictions in the concept of relation and of Bradley's theory of judgment. The principle of all these criticisms, as I understand them, is the same as that by which Zenonic paradoxes have been met from the beginning. consists in pressing the element of continuity or the unity which underlies all differences against the attempt to treat reality, whether it be of a mathematical line or of the world as we find it in nature or in man's mind, as mere discontinuity. Writers like Dr. Stout seem well within their right in pointing to the danger Idealism here runs of placing what we regard ourselves as knowing at the mercy of an "entirely merciless" unknown, and of ending in a form of empiricism as deadly to true knowledge as that from which in the first instance it sought to rescue British philosophy.

What the precise bearing of such an estimate of Mr. Bradley's work is upon the older doctrine of the nature of the Absolute as self-conscious spirit can hardly yet be said to have become clear. It is perhaps the most important issue in metaphysical philosophy at the present time. The bearing of the problem on the theology of the future and through it on the interpretation of religious experience, needs no emphasis. It is no mean advantage to the philosophy of a time and country to have a magnificent endowment devoted by the Gifford Bequest in four of the older universities to free theological research. Splendid as have been the results already achieved in the exploration of the problem as above defined, they are only, I believe, the first fruits of what may hereafter be expected.

What I believe may meanwhile be claimed is that the position which has been won includes the right to look for the type of the unity, transcending and transforming all differences, which underlies and is the logical *prius* of all experience, in the highest

and most significant forms of conscious experience—great art, friendship, religion—instead of in an inscrutable and altogether transcendent experience. It is this right that Bosanquet (expressing, I believe, as much the real sense of Bradley's thought as of his own) claims when he declares that a perfect experience must maintain "the positive sense of the self as something which continually passes out of and regains itself." If this is true we may add with him that "there is no hard barrier set that can make our being discontinuous with the perfect experience." Bosanquet would have been the last to claim any finality for his statement of this principle. He believed in progress in philosophy as elsewhere. But he disbelieved in a progress in which "no definite ground is ever recognized as gained." The most hopeful, to my mind the only line of progress in future is that of the consistent application of this central principle to the new problems that are pressing upon us.

3. For a progress of this kind there is abundant room even in these fields in which Idealism in the past has made itself especially at home. British Idealism, like ancient Athenian, may be said to have been primarily and dominantly ethical and political. Yet it may safely be said that there is as yet no work upon the philosophical foundations, any more than upon the detailed interpretation of the moral and political consciousness that at all compares with what has been done by Bradley, Bosanquet, Joachim and others in the field of Logic. Green, of course, knew better than most what was meant by a Metaphysic of Ethics as the vindication of moral freedom; but the whole outlook since his time has been changed by the recognition, increasingly forced upon us by science, of the continuity of human life with nature and environment, and by the necessity of a reinterpretation of the sense in which "self-determination" is related to other forms of the determinateness which is the universal character of reality. What is true of ethical, is true of political theory. The reality of the General Will is in politics what the reality

Principle of Individuality and Value, pp. xxix and xxxi.

of conscience is in ethics, the reality of system in logic. Green of course borrowing the word from Rousseau put his own stamp upon it, and Bosanquet, among others, did much to enforce and illustrate Green's interpretation of it in the sphere of the State. But as modern psychology has revealed the multiplicity of personalities in the individual so modern political theory has revealed the multiplicity of group wills that cross and interlace with one another in endless variety in society. The task remains for those who hold, I think rightly, to the reality of an underlying consciousness of corporate totality in the human mind to trace its action in the leading types of social union and to establish a Morphology of Society leading up to a view of the State as a highly developed but by no means final form of the social reason.

But I believe that the most difficult and, for the moment, at least, the most pressing of the secular problems that face idealistic philosophy at the present time is concerned with the co-ordination of its leading conceptions with the new ideas in physical science. While Idealism has been strong in the Philosophy of Spirit, its Philosophy of Nature has from the first been somewhat of a scandal: and the training of its leading exponents in this country, it has to be confessed, has not, on the whole, been of a kind that has tended to remove the scandal. Meantime the advances in physical science have raised the concept of Nature into a prominence it has never perhaps possessed since the great days of Galileo and Descartes. It is here that writers (in the main of Cambridge training) have found work to do of inestimable importance to philosophy. That the omens are favourable for such a co-ordination as I have spoken of, recent developments offer good ground for hope. Alike in the work of physicists and biologists the conception of organic interrelation of processes and the reality of the universal in one at least of the senses above referred to are being forced into prominence, and form a natural point of contact with idealistic philosophy. Professor A. N. Whitehead's view of objects as unities or "unit entities which remain self-identical in change"

and are "in a sense out of time," is on all fours with the idealist's recognition of the reality of universals. The same writer in an interesting passage, has claimed the support of philosophers "who insist that reality is a system" for what he modestly calls "the humbler thesis," that "Nature is a system," or, as he elsewhere puts it, that "a scientific object is a systematic correlation of the characters of all events throughout all nature." Vice versa, philosophers may claim the support of the "humbler" for the more imposing thesis. In some scientific writers, as in Professor J. S. Haldane, the two doctrines may be said to merge into one.

What form the co-ordination just spoken of will ultimately take remains to be seen. Meantime, it seems to me that it is in forcing this problem to the front and in such constructive suggestions towards its solution as I have quoted that the real contribution of the New Realism to the thought of our time consists. What is of value in it is not the rehabilitation of such common-sense distinctions as those between immediate and mediate, à priori and à posteriori, necessary and contingent knowledge; still less speculations that would resolve the data of perception into aggregates of perspectives. (The "dance of bloodless categories" for which Idealism has been made responsible finds its counterpart in the dance of invertebrate perspectives to which some realists have sought to reduce the realm of nature). Least of all is its value to be found in the attempt to set up a physical thing-in-itself to which everything else, including life and mind, is adventitious. What seems to me of essential value in the movement is the searching criticism to which presuppositions, hitherto shared by physicists with metaphysicians, as to the ultimate character of external reality are being submitted, and the revolution in our whole conception of physical nature that is likely to be the result. That any

¹ The Concept of Nature, Cambridge, 1920, pp 77 and 78.

^{*} Op. cit., pp. 146 and 158. Mr. J. E. Turner, in a manuscript work which I have had the opportunity of reading, has made excellent use of this affinity. It is significant that Dr. Whitehead while refusing to pronounce on the relations between Nature and our awareness of it recognizes the problem of a wider system embracing both.

³ See Mechanism. Life and Personality, Murray, 1913.

"verification" which philosophical theory may find in the results of research in this field will react in modifying the theory itself is again only what we may expect. But the attempt to exploit these results in the interest of a physical Absolutism can only issue, as already is fairly obvious, in bringing home afresh the impossibility of interpreting the concrete world of our experience in terms of any part of it abstracted from its place in the whole. The new philosophy or, as I prefer to think of it, the new extension of the old one, we are safe in saying will be "synoptic." It will seek to do justice to the new conception of nature and the complicated questions that rise out of it as to our apprehension of nature without sacrifice of what I have claimed to have been established by "a plain tale" in the field of spirit.

The chief obstacle to such a philosophy seems to me to come not from any inherent incapacity of thought (ὁ διαλεκτικός συνοπτικός and human thought is inherently dialectical) but from the one-sidedness of the education and training of the thinker. The old academy required a matriculation in geometry from its students. In the spacious seminal days of modern philosophy the great metaphysicians were also the great mathematicians. In our own time and country mathematics and metaphysics have scarcely been on speaking terms, or have spoken to each other from different worlds of experience. The most hopeful sign of the present day is a growing consciousness of this defect. Conscious as thinkers approaching philosophy from different angles are of one another's infirmities in this respect, they are also becoming conscious in growing degree of their own. Yet there is still little organized effort to remedy these infirmities in the coming generation. Plato was surely right in recognizing that the complete philosopher could only come out of a complete education and experience. On the other hand a defective education can only issue in a defective and eristic philosophy. Writing in the 'forties of last century John Stuart Mill declared that "the spirit of philosophy in England, like that of religion, is still rootedly sectarian." It seems doubtful whether it has essentially changed in this respect. If it be replied that it is no bad thing that philosophical problems should be approached from different sides by men of different training and experience, this of course, is true. What is bad is that our system of education should make it so difficult to arrive from different sides at any general agreement as to what may by this time be taken for granted and made the starting-point for a new era of progress.

I have tried to show: (1) That the work of thinkers in this country in the early part of the period I have had under review was to reassert the principle of Totality as underlying all knowledge and conduct and so to bring back British philosophy into the main stream of European thought. (2) That while much was left ambiguous subsequent developments in the line of the tradition which they established have done much to clear the issue, and that the true line of progress is to start from the position thus gained. (3) That the work of the present generation lies in the direction of the resolute and consistent endeavour to carry out this principle in the treatment of the new problems that are being forced upon it in all fields of the Philosophy of Spirit and the correlation of it with modern scientific conceptions in a new Philosophy of Nature. (4) I have suggested that, while the older literary equipment, combined with the requisite experience, may suffice for the former of these two tasks, a wider training than is as yet commonly available is necessary for the latter. Such a training is the chief thing necessary to confirm and extend the entente cordiale between physics and metaphysics which is the most hopeful sign of the philosophy of the present time.

I have resisted the temptation to seek illustrations of the above view of the course and conditions of progress in contemporary philosophy in the contents of the other essays in this book. It is for the reader to judge how far it finds support in their general tenor.

Dissertation on Coleridge.

In the books and articles which I have myself published, what I have sought to do is to show the working of the idea of an inclusive order or world of experience in the life of the individual and of society as the principle of constructive ethics and politics; and in the criticism of other philosophies to find truth in them in so far as they have acknowledged and themselves been guided by it as the dynamic principle in the whole life of finite minds.

¹ Chiefly Elements of Ethics, John Murray, 1892 (last Edition, 1910); Articles "Ethics" and "Rights" in Dictionary of Religion and Ethics; German Philosophy in Relation to the War, John Murray, 1915; Social Purpose (with Hetherington), George Allen and Unwin, 1918; Life and Philosophy of Edward Caird (with Henry Jones), MacLehose, 1921.

PHILOSOPHY OF NATURE

CARVETH READ

Born 1848; M.A. Cambridge; Emeritus Professor in University of London

BIOGRAPHICAL

To reconstruct the idea of the world is not a modest undertaking, and perhaps few deliberately attempt it; but in some men the conditions and accidents of life, operating upon a reflective spirit, bring about such a reconstruction: beginning obscurely in patches here and there, as amendments to prevalent doctrine, it gradually overspreads and appropriates all the tendencies of their thought; it takes more or less definite form; and then some of them write it out. This was what happened to me. My father and mother were very religious and very tolerant; of the Independent communion, but not of sectarian disposition. The same may be said of my brothers and sisters, and I came far down in the family. In such an household, doctrinal definitions and the consequent doctrinal difficulties are generally appreciated, and any inmate with an inquiring mind and a turn for coherent thinking is liable to become very early a sort of theologian; and that is a sort of philosopher. In those days there was much dread of Geology in relation to the Creation and the Deluge; but these things, irrelevant to Christianity, troubled us not at all. Trouble began with certain doctrines which, as usually presented, were morally impossible.

At my first school (a day-school) I met, at about the age of 9, two boys a little senior who shared with me a passion for Natural History. We collected birds' eggs, moths and butterflies, shells and other "specimens," and projected between us a Natural History of Cornwall. My section was to have been the Birds; and there still lies in my desk the preliminary classification I drew up; which was the beginning and also the end of my task; for I was sent to a boarding-school. My sense of scientific veracity was still imperfect; for having conceived a great affection for the Merlin, I could not leave it out of my tables, though well knowing it was no longer to be seen on our coasts. Let this confession at last disburthen my conscience.

At the boarding-school there was no one to sympathize with me in Natural History; but our headmaster, an exceptional man, had himself a passion for Physics and Chemistry, and indulged his tastes in a small laboratory. These things were no part of the school-work, but he easily became weary of grammar and rudimentary mathematics, and sometimes transferred our class to the laboratory, where we passed happy hours with electric and galvanic apparatus and in the concoction of "stinks." There was not much positive acquisition from these glimpses of natural and physical science; but they awakened in me an interest in such things that has never slept, but has always directed my reading in leisure hours, and determined the character of my thoughts.

At the age of 12 I went to a larger school, where cricket and football soon engrossed me almost to the exclusion for some time of everything else; though somehow a good deal of general information was acquired. Gradually, however, I became the victim of a passion for writing verses which in turn dominated my life, and lasted until it became clear to me that the verses were not poetry, whilst at the same time the reading of technical philosophy changed the colour and pattern of my thoughts. One effect of this obsession of rhyme and rhythm was to make me study the old poets, and another that it confirmed me in a slow habit of composition which has never been shaken off, and which was a great disablement in written examinations and in the attempt I once made to live by journalism. There were, however, about the time of leaving school, intervals in which with mixed feelings of duty, ambition and religious perturbation (needless to describe to those who have gone through it, and useless to those who have not) I read some introductions to philosophy—especially, as I remember, Hume's Essays and Maurice's Moral and Metaphysical Philosophy. The latter was lent me by my brother Edward, who, earlier, under similar stress, had found a high degree of satisfaction in Maurice's devout but subtle and somewhat impalpable way of thinking. Maurice's presence at Cambridge in the Chair of Moral Philosophy attracted us to that University. My brother took Anglican orders.

At Cambridge, the lectures I recall with most gratitude were those of John Venn on Logic—an admirably lucid exposition of the virtues and vices of Mill's methodology—and Henry Sidgwick's on Ethics and the History of Philosophy. Sidgwick's style and matter were perhaps somewhat too closely woven for lecturing purposes, difficult to get into notes, and too full of memorable things to be remembered without notes; but his scrupulous impartiality was a great lesson in the morals of criticism, and his keen and tireless examination of terms and arguments was

a convincing demonstration of the difficulty of philosophizing, and of its necessity. His analysis of Descartes and Locke made me doubt whether anyone had ever been able to express himself consistently on such matters, or was ever likely to. Sidgwick's books inadequately convey to us the brilliancy and versatility of his genius. He was extremely kind to me in many ways, and I revere his memory. Along with the usual courses of academic study, the reading of Spencer's works did me a great deal of good; for nothing else gives such an impression of the unity of Nature.

After graduating, I could not follow my brother into the Church as had been intended; but Theism still seemed to me the most natural way of understanding the world; and believing that the Unitarian communion might yet be open to me, I obtained a Hibbert travelling scholarship and went to Germany for a couple of years, residing at Leipsic and Heidelberg. The old hospitality of the German Universities is memorable to all who have shared in it, and one of them, at least, cannot believe that our present division from the Fatherland is beyond the power of healing. I was especially attracted by Kuno Fischer and Kuno Fischer was an eloquent and brilliant expositor of the history of Philosophy, telling each man's story better than he could himself; but he was not a critic; as you may see in his books, for they are in fact his lectures. Wundt was a most systematic lecturer, rather heavy, but full and thorough. Psychology was a great advance upon anything then to be had at Cambridge; where that science did not yet greatly flourish. My reading, meanwhile, was chiefly in Kant's imposing synthesis of inventions—establishing a balance of power between science and mysticism, and atoning for fatal destruction by illusory renovation. Next in Schopenhauer; on whom, in the enthusiasm of a first acquaintance, I purposed to write a book; till, on applying the critical method that Sidgwick had taught me, it became too plain that his principles were half-truths and his constructions fallacious. He is the least coherent of modern philosophers: but, considered as literature, his work is by far the most entertaining and stimulating. The result of these and kindred studies was that I no longer thought that Theism (in the usual sense of the term) could be coherently stated and defended; but it was some years before (under the influence of Spinoza and Darwin) an alternative clearly shaped itself for me.

Soon after my return from Germany, Walter Wren engaged me to lecture to candidates for the Indian Civil Service; at first on Logic and Philosophy, later also on Economics and English Literature. It seems too much; but, in fact, the Literature was such a relief that it made the other work easier. It was said that the students thought so too. In 1903 I was appointed to the Grote Chair of Philosophy at University College, and began to give up my other employments. Of late years most of my time has been given to Psychology and Anthropology. Lecturing from notes, often very scanty ones, there was no result that could be published, and the supposition that has been made that my books, or any portions of them, are transcripts of my lectures is groundless; but in preparing lectures most of the ideas occurred to me from which a selection is given in my books; from which, again, a selection is offered in the following pages.

PHILOSOPHY OF NATURE

§ I. The many beliefs entertained by a community most people do not reflect upon or question: but contradictions amongst beliefs and disappointments of the expectations they raise are noticed by a few strong minds, and inquiry begins as to their truth. To evalue, confirm or reject, or reconstruct and extend prevailing beliefs is the task of Philosophy. Those that can be made definite, systematically consistent, verifiable by observation and acceptable to competent judges are held to be true; and such we call knowledge, or (in their most elaborate form) science; and whatever is thus recognized becomes a test of other beliefs. Philosophy, comprising at first the rudiments of all science, is by degrees confined to the most general considerations, about which there is least agreement.

Untrue beliefs may, though criticized, survive for ages, because they hold not of experience but of fear and affection: and true beliefs, for some appearance of inconsistency or incoherence, may be attacked and doubted. Our belief in the reality of the world and of the things around us has survived many assaults. It is observed that all things change, some faster, some slower, but that everything at last gives place to something else; and there is a prejudice that the transient cannot be real: that, again, some of the properties of a thing (colour, sound, odour) depend upon the presence of a sensitive witness, and in his absence cannot exist. They are, therefore, transient and conditional, and thus doubly unreal; for there is also a prejudice that the real must be unconditional. Other

properties of a thing (mass, extension, movement) may still seem to be the thing itself everywhere and always, and so to be real. Inferred to be the permanent conditions of transient properties, they are called 'primary,' the transient 'secondary.' But at last the primary qualities are also found to depend (as they are known) upon sensations of pressure and movement, and therefore to be conditional upon the presence of a sensitive subject—transient and unreal. That the real must be permanent and unconditional is a prejudice; for no one can point out any such thing. The transient and conditional is real as long as its conditions exist, and everybody regards it and treats it as real; and the world considered in this simple way I call empirical Reality.

Very little reflection shows that secondary qualities are more conditional and less permanent than the primary; for they depend not only upon a sensitive subject or percipient, but also upon the physical situation: colours disappear with the light though resistances do not, and our own weight is a constant experience. And when investigation shows that secondary qualities depend on the primary, it also shows that they depend upon media between the percipient and things seen or heard.

The pursuit of this investigation, with other related inquiries, leads to beliefs as to the internal structure of resisting, extended things, their granular structure of molecules, atoms, electrons in incessant movement, which can never themselves be perceived; so that we pass out of the region of direct experience into a place of concepts. And this new world is regarded as more real (more permanent and less conditional) than anything that is perceived. Yet its reality depends upon our conceiving it according to the model of things perceived, and upon the possibility of drawing inferences from the conception of it that can be verified in perception: so that empirical Reality is never "explained away" by, or even subordinated to, that which may be called conceptual Reality.

§ 2. All things in the world being analysable into qualities cohering or interfused in definite schemes, each at a certain

Metaphysics of Nature, chap. i.-vi. 1905.

place and time, and all qualities being facts perceived (or conceived from perceptions) and grounded in some mode or modes of sensation, are apparently dependent on a percipient. What then becomes of them when not perceived? At night everything beyond our reach is lost. How can the earth have existed before it was inhabited? stars before they were discovered? As it is absurd to doubt that they existed then in some way, we imagine them as if we saw them: but their existence in that way being impossible, we can only think consistently of their existence as one condition of their actuality. needing a percipient to complete it. The degree of actuality to which the world can attain depends upon the capacity of the percipient; so that it very gradually acquired its present empirical extent and riches as animal life developed, and perhaps with better endowed spectators it would be far richer. Nevertheless, the potential state of the world, considered by itself, is supposed to be unconditional, everlasting and universal, and therefore most real-transcendent Reality or Being.

The world as perceived or conceived, being knowable in no other way, has sometimes been supposed to exist only in our minds. But this is a contradiction of experience; for the mind peculiar to each of us stands in contrast with the world that seems common to all. Still, if not in one's own mind, it is in consciousness. Considering any quality, such as the blue of the sky, whether it belongs to the mind or to the world depends on our attitude toward it: we may regard it as objective quality or as subjective sensation. But the difference of attitude, whilst not affecting the quality-sensation as an abstracted experience, does affect its relations; for in one case it stands amongst other qualities of a thing in space, in the other case amongst feelings, ideas, conations not in space. In both cases it is in consciousness; but in the former case it is not in the mind but material: in the latter case it is in the mind or mental.

If one thinks of objects in space as in some manner in the mind, one is apt to suppose that their appearance in space must be due to their having been 'projected' (a word I have

once inadvertently used) at some forgotten date, probably in infancy. But they never were in the mind. The differentiation of consciousness into objective and subjective is to be understood as a process of evolution. Consciousness in the simplest animals may be supposed to be some sort of sensitivity (unlike any that we now know) which is neither subject nor object, neither mental nor material. With advancing life, under different stimuli chemical and mechanical, there arose a variety of sensitive responses; and then occurred an integration on the one hand, of elements which cohered with the sense of movement and resistance, kinæsthetic reactions; on the other hand, of elements associated with the rudiments of pleasure and pain and the cœnæsthesis. Thus appeared object and subject, matter and mind, contrasted regions of experiences following different laws.

One must not pretend to say at what stage of animal life this difference first breaks out: possibly with the beginning of a nervous system in the Calenterata. It grows very slowly: and the objective field of consciousness is for ages (indeed, until the rise of Man) far in advance of the subjective. A condor floating over foothills of the Andes has, no doubt, a comprehensive and definite view of the material world, but very little mind: for this develops with the variety of feelings, memories, purposes; so that even in an ape it is still very poor, and but little attended to. The perception of the world, then, or object-consciousness, is the greater part of the generic consciousness (the rest is primitive feeling and impulse) common to the higher animals; which is inherited by Man and innate, in the sense that its development in infancy depends upon experience chiefly as stimulus, hardly at all as source: and with very little stimulus (for he is generally asleep) in a short time it matures into as definite a presentation as he will ever know. This presentation differs for each of us, but not enough to prevent our agreeing upon it. Hence, when self-consciousness arises, in his third year, a child finds himself sharing with others in an orderly stable world, which he can hardly imagine himself to have 'projected' and

(normally) cannot suppose to be unreal. But his mind in its individuality is then only beginning to develop.

The stability and order of the object-world are in such strong contrast with the instability and (on a cursory view) the irregularity of the mind, that it is difficult to think that they are inseparable fields of one consciousness. It is a difference in degree of organization as exhibited in the nervous system. The functions of that system's perceptive structures are in great measure automatic; as is necessary for animals whose life depends upon dealing with events in the environment within narrow limits of time. But the structure of the cortex which subserves reflection is very loose, especially in Man, corresponding with the demands of a wider and more complex life, involving remote expectations and memories and a perpetual flicker and recombination of ideas of how to meet his ever-varying circumstances. Thus the objective and subjective fields of consciousness alike are what they are in adaptation to the conditions of animal and human life.1

The term 'consciousness' has lately been made such a puzzle that I must explain that here it stands for all ideas, conations, feelings, perceptions, sensations, and the elements or rudiments of these, collectively or distributively: not a faculty by which they are known, nor a 'diaphaneity' in which they float "like pigments in oil." It is only in this way, by denotation, that the term can be elucidated; it cannot be defined by analysis, because the common character of ideas, sensations, etc., is simple. 'Awareness' does not translate it; for of the greater part of consciousness (as we shall see) no mind is aware.²

§ 3. Our own consciousness accompanies the highest known organization of matter; and to other animals, vertebrate and invertebrate, we attribute lower degrees of consciousness according to their grades of organization. This is generally accepted as a fact: if asked why fuller consciousness should accompany organization, I can only suggest that organization

Met. of Nat., chap. vii.

[.] Met. of Nat., 2nd ed., app. B.

is the means of bringing elementary processes into effective relation one with another. Many botanists agree with the poets who find some signs of consciousness in plants; for plants have organs analogous with our sense-organs, and respond to appropriate stimuli by purposive movements. inorganic world it is generally unrecognized; but as the organic is built on the inorganic, there is no accounting for consciousness in the former unless in the latter it was already present; and experiments have shown that the behaviour of such things as tin or platinum wire, under certain modes of treatment, is remarkably similar to that of plants and animals under the same conditions (Bose). It helps us in this conception of the universality of consciousness in Nature to observe in our own experience degrees in the vividness and distinctness of sensations and feelings and marginal processes. There may be many more degrees beyond our experience, and there is no reason why degrees of consciousness should not be refined as illimitably as the elements of matter. The utmost refinements in either kind may well be related. Still, below some level of organization (say Cælenterata), though there may be many grades of consciousness, we can hardly suppose that it exists as a mind with the subject-object differentiation, or with the differentiation of cognition, feeling, conation.

Some degree of consciousness may be supposed to be related to every movement of every material thing; but what is the relation? We have seen that, for us, a material thing is a phenomenon in the objective consciousness of a subject; in the absence of a subject it is only a state of Being which needs the presence of a subject to actualize it. But the consciousness related to a material thing (mineral, plant or protozoon) is never known to a subject (a subject knows only its own consciousness), and therefore does not depend upon the presence of one. Therefore, in the absence of a subject, it remains with the state of Being which then remains. That is to say, if consciousness is related to every material thing, it appertains universally to the unconditioned and perdurable Being.

Met. of Nat., chap. x. §§ 2-3, and 2nd ed., app. B.

This position solves three problems: First, the relation of the mind to the nervous system. Reflection shows that neither the nervous system nor any structure of it (say the brain) can be the cause of mental processes, sensations, feelings or ideas. Even if changes in the brain could be shown to be the antecedents of conscious processes (which is not the case), they would not be their causes: because the two processes are heterogeneous, and because the energy of changes in the brain is fully equated with physical effects. But if changes in the nervous system are phenomena of changes in Being, and consciousness accompanies those changes in Being, the correlation of brain with mind has a hypothetical justification.

A second problem is presented by what to Biology may seem like the redundancy of consciousness. It has no inertia, mass or motion, cannot be considered as a mode of energy interchangeable with electricity, or heat, or any of the modes that are measurable. It cannot, then, reinforce, or inhibit, or in any way modify the physical changes that go on in the body: all whose processes from stimulus to reaction, however long or winding the chain, may be supposed to go on in the same way whether consciousness be present or not. Hence it has been called an 'epiphenomenon.' Its universal presence in animal, or (to keep to what we know) in human life, cannot be explained by its utility, nor, therefore, by natural selection. May we not, therefore, infer that, since it is everywhere present in human and (as most think) in the higher animal life, and yet is biologically useless, it is there because it is necessary, cannot be left out, an activity of Being which is found wherever Being is manifested, and which rises to self-consciousness wherever animal bodies reach a certain high level of organization. I

The third problem is to find the origin of consciousness. Every one believes that a chicken is conscious; very few believe this of a new-laid egg; but some would grant it at one stage or another of the incubation. However, the gradual

development of the chicken can at no point explain the occurrence of consciousness. Similarly in the animal kingdom, the higher ranks are admitted to be conscious; but it is a common opinion that consciousness exists no lower in the scale than the level at which the presence of associative memory can be proved by an animal's behaviour. Yet the advocates of this opinion do not think that memory (as consciousness) can have any influence upon action; it is not memory-images in the ordinary sense of the words, but 'brain-images' that are supposed to do the work. Thus the "criterion of consciousness" has no meaning, and the limitation of consciousness by evidence of associative memory is arbitrary. If we admit the principle of continuity (ex nihilo nihil) for consciousness as we do for the processes of the physical world (and, if not, why not?), there is no escape from the alternative of regarding consciousness as an universal activity of Being, which accompanies inorganic changes, is incorporated with certain molecules in protoplasm and in the simplest organisms, is inherited with the germ-plasm by one organism from another, and grows clearer and richer as organization proceeds.1

§ 4. It seems, then, that consciousness must be an essential, universal activity of the world: not of the world as a phenomenon, for that is a construction, or growth, in objective consciousness, and conditional upon the presence of a subject; but of the world as thing-by-itself. If, however, 'thing-byitself' means the world apart from consciousness, and yet consciousness is an universal character of it, there seems to be a contradiction. The resolution of the difficulty is that, in speaking of the world as 'thing-by-itself,' one means that it is not an object in consciousness. The consciousness that is an universal activity of Being or of the world (as inferred from our premises) is undifferentiated, neither subjective nor objective; and, if so, the World or Being is never an object to itself, except so far as minds arise from it to know it as a phenomenon. It is with but not for consciousness. At least, from the positions taken above, that is all I can infer.

This hypothesis of an everlasting unconditional world with two characters or activities-consciousness and an Other (often called 'force')—is, no doubt, very elusive. From its nature it can never be verified: for verification is either by introspection of our own subjective consciousness, or by perception of the phenomenon; and the 'other' of the world can never be given in either of these ways. In fact, it is not a possible object of knowledge, and (strictly) is never really thought at all. For thought implies relation, and a relation implies two terms. But in any judgment by which we may try to determine the thing-by-itself, there is only one term, namely, some mode of experience, some conscious process or some phenomenon, and this is related to—a void. The thing, therefore, which by itself is only the potentiality of the phenomenon, needing the presence of a subject to actualize it, is not an object of knowledge or science but only of belief. Belief does not require experiential judgments of bilateral relationship; a symbolic word is enough for one of its terms: as we see in popular superstitions that ascribe events to 'magic' or 'animism'; for these are nothing. are vaguely imagined (like the thing-by-itself) as 'forces'; but we know nothing of forces: our supposed experience of them is merely the sensation of effort—a natural illusion. old phrases that described the thing-by-itself as a 'substratum,' the 'support' of accidents, or that in which accidents 'inhere,' have the same fault of borrowing all their meaning from relations of phenomena themselves. A judgment concerning the relation of phenomena to the thing-by-itself can never grapple the transcendent term. That term, therefore, seems to denote a superstition rather than knowledge. Nevertheless, I am not disposed to dismiss it to Limbo: superstitions have had important functions in human life; and this one (if it should be so classed) serves the purpose of a symbol (which most people seem to need) of that which is perdurable in the world in the absence of any perceiving subject.

Perhaps another reflection may give it some help. Consciousness is the most certain of all things; the psychological

study of Biology raises a strong probability of its existence in animals even where the differentiation of object and subject can barely have begun; if present at all in the inorganic world (as argued above) it must be undifferentiated. The whole of Nature having been in remote Pre-Cambrian days at that stage (which no one doubts), there was then no object or phenomenon. Therefore, if consciousness existed at all (as continuity requires) it must have belonged to the thing-by-itself; which, therefore, also existed. It may be asked—Why should not consciousness have been self-existent? I do not deny that possibility; but it is never known except as an activity or function: and so (by analogy) the thing-by-itself appeals to our belief as the necessary organ of that function. But, alas! 'organ' is a metaphor from experience.

§ 5. This notion of a perdurable, unconditional, transcendent reality is not constitutive of knowledge or experience: fag-ends and gaps in experience cannot be patched or bridged with symbolic belief, but only by the ideal extension of experience itself. The unconditional is an indicative idea: it points toward something incomprehensible: an orectic idea of something we desire to grasp, but which is unattainable. It can never be anything but an imperfect idea. Supposing it to represent something, can we give it any content? First, if consciousness is its known activity, it must be related to the subjective experiences of change, succession, time, co-ordination. Secondly, if phenomena are its manifestation, we can hardly help assuming of it something corresponding with space, energy, causation, and may be tempted to follow these assumptions into all the detail of movement and configuration. But this would be merely to duplicate the phenomena. Our inferences from subjective experience, since this is the immediately known activity of the thing-by-itself, are far more secure than from objective experience, since this only represents the thing under the conditions of knowledge.1

Cognition depends, empirically, upon a physical stimulus exciting sense-organs and their attachments in the brain (with

^{*} Met. of Nat., chap. viii. § 8.

related areas), so that a percept is formed; ontologically, it consists of processes in that portion of Being manifest in the body, accompanied at every stage by their own consciousness, and in the cortex by the definite and regular sensation-pattern which presents an object in space. Volition depends, empirically, upon the subjective representation of a desired end, accompanying a process in the brain, which through motor nerves and muscles (with their own consciousness) effects a mechanical change in the external world; ontologically, the process occurs in the Being of these things. So much to show how the hypothesis works: but it leads to nothing.

If consciousness is an activity of transcendent reality, our own subjective experience is not a phenomenon (though in Psychology it is convenient to call it so), but reality itself (for an activity of anything is the thing itself active). But our objective experience presents the world in phenomena, as the only way of knowing the world so far as it is other than consciousness. Subjective consciousness, therefore, cannot be dependent upon the body as a phenomenon; it is not an epiphenomenon: because the body, as phenomenon, exists only by cognition in objective consciousness.

What, then, is the position of Physiological Psychology? It is based upon inductions concerning the relations between bodily and mental processes, which have already been carried far enough to raise a strong presumption of the universality and constancy of such relations; and the nature of mind is such that without the aid of Physiology there can be no adequate science of it. Mental processes cannot be studied with enough clearness and constancy to yield a thorough continuity of events according to laws. Except in their time-relations, (duration and interval), they have no definite quantity; and so much that is involved in a process is usually (or always) subconscious, that measurement is impossible. To explain the mind which, whilst to some extent common to us all, is also peculiar to each, we turn to that upon which we can agree—physical fact, and often learn there of psychical

functions that are not open to introspection (e.g. of the semicircular canals). Through Physiology, Psychology obtains the aid of the biological retrospect, biological laws and the comparative method. Through our bodies Society exists, and presents the data of Religion, Art, Polity and Morals.¹

The world, then, is a conscious thing which, in the course of evolution, produces a differentiated consciousness in organized bodies, whereby it knows itself in phenomena, and in Man tends toward ever completer self-knowledge in the only way in which knowledge is possible. That which is universally conscious it would be convenient to call, in antique phrase, the Soul of the World; and the emanation of it, which becomes known as animal body with animal or human mind, would then be the soul of such or such an animal: but this might lead to endless animistic Schwärmerei.

§ 6. A transcendent Being, the consciousness and the agency of the whole world, is (so far) similar to God in the Berkeleyan philosophy; but I see no way, within the limits of Philosophy, of carrying the conception further. For example, the interpretation of Nature, or of History, by final causes seems to lie beyond our power, if we admit that the course of phenomena, alike in the inorganic and organic worlds, agrees with the hypothesis of mechanism, in the sense that every event is determined by "the antecedent configuration of matter and energy"; though the explanation is far enough from completion. I am constitutionally incapable of thinking definitely about phenomena in any other way. But in the interpretation of human life by Ethics, or Politics, or popular reflection, we are guided by the idea of purpose; considering one's own life, it appears that from purpose it derives its continuity and unity. Hence there is a strong prompting to interpret Nature in the same way; especially as we find there innumerable cases of the adaptation of living things to their environment, and that in many ways the environment may be represented as prepared for them. But we are discouraged by finding that interpretations by final causes

(at least, according to the type of human wisdom) are indefinite, fragmentary, and do not make a system; that the cases so explained are inconsistent, being adaptations impartially of good and evil (according to our ethics), to community of welfare and to ravin and parasitism; and being also unverifiable, they do not satisfy the criteria of truth. Meanwhile, the origin of adaptations in variation and natural selection is easier to conceive and free from the moral offensiveness of attributing them to purposeful predetermination. There is not room here to treat the matter adequately. Formerly, in discussing it, I spoke of "Kant's suggestion, that in the inwardness of Nature physical and final causation may be the same principle, as the only possible way of reconciliation"; but I have never been able to make this identity intelligible to myself.

And then, turning from the world to the individual, we find that the appearance of purpose in his actions, as a principle independent of antecedent causation, is illusory: for it depends upon our omitting to observe that the idea of any end has itself antecedents in experience, from which it is plainly derived; and that the desire which reinforces it and leads to action, according to one's character, is also an antecedent; and that the cerebral and other physiological processes correlative with the purpose and desire have their antecedents; so that, throughout, the routine of causation is undisturbed.

If we allow ourselves to imagine a purpose of the world within our comprehension, none is more specious than the effort to attain to self-knowledge by the development of more and more highly organized minds; and on this planet, at any rate, there is a manifest tendency to that result in the advance of human understanding. The greater part of mental evolution is intelligible as determined by natural selection. Until we arrive at Man, the intelligence of animals is plainly adapted to the circumstances of their lives, and no more than enough to enable them to obtain food, to propagate, and to avoid enemies. For the most part this is also true of Man; but

the achievements of some of our species, especially in science and philosophy, are such as cannot be shown, without much ingenuity, to be, by their survival value, 'useful.' They are, however, useful as culture (which has to some men become an end or even the chief good), and they may be imagined (by anyone who thinks it possible) to be a revelation of the World itself to Itself.

§ 7. Imperfect, no doubt: but we also are obliged hitherto to put up with very imperfect self-knowledge. Nothing can be shallower than the human mind's knowledge of itself. This necessarily results from our being at so late a stage of evolution: for the conditions of efficient life require a co-ordination of the bodily organs and of consciousness more and more nearly approaching, at each moment, unity of control. Hence our subjective consciousness proceeds in a narrow file of presentations, which follow one another without our knowing how it happens, any more than we are aware of the mechanism by which our nerves and muscles drive a pen. The presentations, indeed, whether images or words, carry, or (rather) are regulated by, meanings derived from all our past experience; but the greater part of that is forgotten, and much of it (normally) is beyond recall. A symbolic character is common to all grades of cognition-perception, images and words. is true that special study has done something to illumine the darkness of the latens schematismus and latens processus of the mind. But consider even a sensation of colour, which seems so simple, yet how great a synthesis it probably represents, developing in correlation with the eye and its central connections. It is reasonable to suppose that every cell that goes to constitute the body has its own consciousness, of which we are never distinctly aware, though each cell may contribute something to our total subjectivity; and even in the central nervous system, with its prepared lines of connection, it is only in the cortex that consciousness becomes identified with ourselves, and only in the focus of attention that it is clear and coherent. If we try to imagine what happens in regions of the mind unconscious to self, whilst ideas are forming before

they are presented, we must consider that each idea is highly complex and implies excitement in widely different parts of the brain, whose co-ordination is correlative with an idea. Until co-ordination is completed the idea does not exist: there are only cerebral tendencies with their elements of the idea in an unknown condition. If completed ideas, of which a man is not conscious, exist in his mind, it must be that a co-ordination of elements has been completed in some region of his cortex which is shut off from the processes concerned in the principal focus of attention; and abnormal cases of plural personality, if co-conscious, seem to imply that two or more foci of attention are active simultaneously. But that "the unconscious" should at any time be full of complete ideas. belonging to several systems is not easily conceivable. To that obscure region belong the 'instincts' and 'dispositions' which we call upon to explain behaviour and character; but how or in what form they exist there we do not know.

§ 8. However imperfectly we understand the human mind, we know enough of it to be aware that it holds an extraordinary place in the world, separated apparently by a wide gulf from the mind of the highest types of the Mammalia, to whom our physical relationship is manifest. I have tried to explain the changes, both physical and mental, that have occurred in our rise from among the apes by supposing that, whilst they have remained chiefly (but not exclusively) frugivorous, our own ancestor three or four million years ago betook himself to animal food and to the life of a hunter in order to obtain it. The early hunters banded together in attacking large prey, and so formed a pack (as it were, of wolf-apes), thus becoming gregarious. As animal prey could be found everywhere, they were able to leave the tropical forest, to which the anthropoids are confined, and to roam over all the world. Their bodies underwent the changes which we see to have taken place on comparing ourselves with a gorilla, because they are all advantageous to a hunter. Their minds underwent corresponding changes: becoming more intelligent in the circumventing of prey and, in time, discovering the

1 mg 35 5 1

uses of weapons and of fire and the ways of preparing them; more co-operative in social life, developing language and submitting to manners. Every human society still has the constitution of the pack with leaders and followers, an object of pursuit, gregariousness, aggressiveness, emulation and suggestibility.

A result of early mental development without the power of distinguishing false from true beliefs, was the growth of imaginations concerning magic and animism: delusions that threatened, and have done, much mischief, but which were strangely turned to good account. The hunting pack was controlled by the superiority of leaders and the fidelity of followers: without which there cannot be a pack. But a time came when hunting was for many tribes no longer the chief means of subsistence, so that the pack lost its utility and its natural organization; and then (as our reports concerning backward peoples seem to prove) the control of the group and its social discipline came to depend upon the acknowledgment by its members of the magical powers of certain individuals (generally old men), whom on that ground they observed and obeyed. At higher stages of culture the power of magic seems to be superseded by that of animism; though in fact a great deal of magic is incorporated with animism. The tribe is then governed by a chief who is believed to be related to, or protected by, ghosts or spirits who have become gods.

The control of primitive men by delusions was necessary because of their incapacity to understand the real reasons for social order and unity, and to desire these things for their utility. The constitution of society by leaders and followers gave advantage to those groups that produced the greatest leaders; and therefore the valuable quality in breeding was not the production of high average endowments, but variability; whereby from time to time a few great men were born, whilst those of the average crowd were merely capable of following (loyal and suggestible), and a tail of defectives completed the population. A low average in character and

¹ The Origin of Man and of his Superstitions, chaps. i., ii.

intellect is the mortal disease of our race. Hence there is no clear insight into social conditions, and most of the work of the world is done under the influence of illusory egotistic passions, which nevertheless subserve (however imperfectly) social ends.¹

§ 9. Society having been established, of all the institutions that maintain its life we may especially consider Art and Morals. From the more primitive peoples we learn that the Fine Arts originate in spontaneous attempts at designing, dancing, singing and mimickry, but that very early they are employed in the service of Magic and Religion: a magical use is generally assigned to the famous cave-paintings of the Old Stone Age; and throughout the world most of the history of the Fine Arts is part of the history of religious institutions that employ them. In the study of Æsthetics this is a necessary consideration.

The tribe or State depends upon order and devotion to its cause; but many of the tribesmen are very imperfectly adapted to fulfil their part. The condition of human life is co-operation qualified by rivalry and self-assertion. So it was in the hunting-pack, and so it remains; though some nations come nearer than others to harmony. To secure order and devotion by force has been impossible for any government; and, therefore, Religion has maintained tribes and states, and the Fine Arts have grown up in support of Religion. They have assisted Religion to subdue mankind by the imagination. Until the last few hundred years nearly all great works of art have been accomplished in the service of gods or of kings (or States) allied with gods: in the building and adorning of temples and palaces the plastic Arts have flourished-Architecture. Sculpture. Painting; and, in the ceremonies therein performed, the rhythmic Arts-Poetry, Music, Dancing. From sporadic, personal, experimental beginnings (persisting in small matters) Art thus became, in its chief manifestations, nationalized and depersonalized. This is the foundation of the greatness of Art, not easy to understand in view merely of its

¹ Natural and Social Morals, chap. ii. § 4.

present condition. For as societies advance in stability and amenity most men find in their present worldly lot sufficient motives to maintain order and serve the State; and then Religion loses its political utility and authority, and the Arts lose the utility they had through Religion; and they become (as we see them) once more personalized and denationalized, but with a vast inheritance of skill and learning and prestige, of noble subjects and noble forms of treatment. It remains to be seen what will happen if, with the spread of the modern spirit, new motives entirely supersede Religion, and the great inheritance of the Arts is adapted and exploited for the gratification of the average man.

It was in the great ages that Art acquired the character summed up by Kant in his four moments of æsthetic judgment: It is disinterested; for in national worship, though divine favour be its acknowledged purpose, yet neither artist nor worshipper seeks a private good, and to praise God and honour the king is a spontaneous expression of devotion and loyalty. Hence it has from its origin the form of purpose, but this is lost and forgotten in the performance itself. And judgments of such work are taken to be universal, because the practice is universal. Subjects and methods of treatment, slowly evolved, are by repeated trial adjusted to the national ideas and sentiments, and may remain unchanged for generations. Finally, such judgments, being universal, are felt to be necessary, particularly when subjects and methods have been consecrated by Religion. But if, in a degenerate age, they are disputed, rationally to justify them may be impossible: for they were founded upon sentiment and tradition, not on reason, and have now become personal and subjective judgments.

Similarly, the emotions regarded as specifically æsthetic, sublimity, pathos, beauty (each name covering a wide range of subtle feelings, never twice the same), are the exaltation, terror and affliction of those who celebrated the victories and tragedies of the gods and divine heroes, and the tranquillity of the issue in necessity and acquiescence. Emotions of all

kinds excited by, or generating, the Fine Arts differ in tone and impulse from those of the same name (say fear or rage) as they originally exist as motives to action; and the change of quality must begin early in religious celebration: for when such celebrations are not to lead to further action, it is necessary that the emotions generated in their performance should subside with only an imaginary satisfaction; so that the performance becomes an end in itself. This is one of the alliances of Art with play.¹

§ 10. Morality is derived from Custom (some customs, many having no relevance); and its rudiments appeared earlier than Art; for gregarious animals, whether in herd or pack, have their customs and enforce them. Custom, determining only external observance (that "this is done"), is, so far, nonmoral; but in relation to rebellious personal impulses and desires it gradually generates a crude moral consciousness in the fear of penalties or in remorse for trespass. Custom is slow to change, and this is one source of its utility; for so slow, too, is the growth of self-directive character in the bulk of the population that custom remains to this day the chief ground of social stability. But intercourse with other tribes (chiefly) modifies or relaxes its rule, and reflection upon personal conduct gains a certain freedom and influence. Reflection interprets custom and seeks to rationalize it; discovers that merit and demerit depend not merely on observance but upon the intention of the agent; names come into use for virtues and vices, and there is much proverbial wisdom. Religion in most tribes has some concern in enforcing good behaviour; though as it tends to treat religious observances as of equal obligation with moral duties, it is only those religions that conceive of God as definitely moral (presupposing moral ideas) that give effectual aid to morals and deliver moral doctrines. Religion profoundly modifies moral sentiment, and the thought that God sees the heart reinforces conscience. The results of reflection, thus accumulated from custom, popular enlightenment and Religion, supply (with personal ex-

Natural and Social Morals, chap. x. on "Art and Morality."

periences) the data which Moral Philosophy has to criticize, define, explain and co-ordinate in some sort of system. It is essentially a study of common-sense, naturally evolved by experience and reflection as the foundation of social welfare. Hence innovation in practical doctrine is rare in Moral Philosophy, and is apt to be regarded with suspicion or even disapproval.

Since human life is purposive, every action aims at some good, and the ground even of divine commandments must be a good above all others, to which good actions are means. The first task of Philosophy is to discover this chief good, which, if found, will explain the nature of good actions and virtues as tending to secure it, and of bad actions and vices as tending to frustrate it; will justify all wise judgments, proverbs and prophetic sentences, as declaring means to this supreme end, and will thus rationalize the whole conduct of life.

Several ends have been proposed as the Chief Good: all of them were put forward at the very beginning of Moral Philosophy and have found adherents ever since. They are Virtue or perfection of character, Philosophy itself, Happiness for oneself or for all the world. It has to be considered which of these gives the best explanation of the data (common-sense and experience) and best co-ordinates our efforts and aspirations. Men have often assumed that these ends are opposed one to another (especially Happiness and Virtue); but for the rationalization of the life of mankind as a whole, they must all be recognized as aspects or factors of the Total Good (Bonum Consummatum); because, in fact, different ways of conceiving of the good life are natural to different men and women—there exist moral species: and this is indicated by the spontaneous expression of these doctrines in the beginning and by their persistence from age to age. This position of mine has been called Relativism, but might as justly be described as toleration, which I account a virtue: and it is undeniable that each of the above conceptions of the Chief

¹ Natural and Social Morals, chap. vi.

Good has been freely and sincerely held by some men who led exemplary lives. Indeed, the lives that these apparently diverse ends co-ordinate are essentially the same: none of them is inconsistent with the recognized virtues; though one may be more than another favourable to this virtue or to that. And so far as the lives differ, each of them contributes something indispensable to the fulness of the world. Why, therefore, should one be eager to have others adopt one's own view? Who that knows himself can desire that everybody else should be cast in the same mould? Every student of the history of Philosophy must have learnt that whatever he thinks, it is probably wrong.

For my part, I think Philosophy is the most definite and comprehensive End; or since this may seem a narrow, professional term, and few people can be 'philosophers,' to avoid technical limitations, I say Culture, which may be sought by all who have leisure (as all should have): not a miscellany of accomplishments, but including above all the discipline of thought. Thought, besides its own good, is the condition of attaining all other Ends. As applied to the physical world, it obtains the knowledge which facilitates industry, remedies poverty and disease, and may control with inestimable advantage the breeding of mankind; in the social world it may rationalize polity, religion, law and ethics, and by enabling us to understand one another and ourselves, may assuage or bring to an end the dissensions of the nations. But I refer to Aristotle and Spinoza for the praise of Philosophy as the Chief Good. If, trespassing beyond our knowledge, we suppose that the end of Nature is the self-knowledge of the World, it is in Philosophy that this must be realized.1

Whatever End be chosen, the goodness of an action consists in its being the necessary means to it, in having a tendency to further the attainment of that end: that is to say, in being the cause, or a causal factor, of that effect. No unconditional rules can be laid down to govern our actions; because, in the complexity of actual life, actions that come under such terms

Met. of Nat., chap. xv. § 4; Nat. and Soc. Morals, chap. ii.

of honour as 'Truth' or 'Benevolence' are liable to have their purpose frustrated by injurious circumstances. It is only by conceiving of actions as tendencies to procure the good that we can avoid the appearance of a conflict of duties. Moral reflection upon what we ought to do must discover what is best in view of all the circumstances known to us. Much less can conduct be defined by prohibitions—as "no sensual excess," "no fraud," "no aggression"; for this is to conceal the real question—What (in this case) is excess? fraud? aggression? Until these questions are answered, to forbid such things is tautology, for all these terms connote injurious actions. Such well-meaning negations have suggested the notion that Morality originated in the taboo; whereas positive customs are far earlier.

Since Moral Philosophy is a study of Means and Ends, it is a study of causation, and does not differ from the Natural Sciences, except that its investigations are limited by the End. The principle of Prudence—"that a good has the same value in the present or in the future, other conditions being the same "-is absolutely true, because time is not itself a thing or a cause, and (apart from events that happen in it) can make no difference to any effect. Similarly, the principle of Justice-"that what is right for one is right for all"; and of Benevolence—"that the good of one is as important as the good of another "-are true; because abstract individuality (apart from each man's accidents) comprises no difference of causation, and therefore makes no difference to any effect. Moral science, then, if methodically worked out, would present a system of primary and derivative laws of the tendencies of actions to promote the Chief Good. The derivative laws are the subject of Casuistry, now perhaps too much neglected. Hence the moral categories are all defined by causation: Free will is the acting upon one's own choice, one's own character being the decisive condition; Virtue is the quality of a character so far as it is a free cause of good actions, a good action is one that is a necessary means to the chief good; Duty is the necessity of an action in relation to the End under

a sense of obligation that presents no assignable sanction: and so on.

§ II. The mention of "free will" needs some explanation. It is agreed that, if a man (or his 'will') is not free to choose what, in any case, he shall do, he is not a moral agent. But it is often supposed that human freedom is incompatible with natural law, and that, therefore, the universality of law (which I everywhere assume) is incompatible with a moral life; so that there seems to be a conflict between moral and physical principles. Now every man knows that when choice has to be made between two or more courses of action, he can represent to himself the possibility of adopting any one of them, that he can consider and weigh the consequences of each, and choose the one that seems to him best on the whole; and that, in doing so, he seems to himself a free agent. He forms his own purpose, and in pursuit of it he exerts his own energies. The "testimony of consciousness" in this situation is not dubious; he acts freely according to his own character.

A spectator, however, may doubt whether the agent is not under an illusion. "According to his own character indeed," he may say; "I knew what he would do. His character is the result of heredity and experience; and it is quite settled: his friends trust him every time."

These two judgments of the incident may seem to be contradictory; but they are not, because they are really concerned with different matter. The spectator regards the agent as a moving body, a phenomenon, in relation to past experience of him and to biological principles. The agent does not think of these things, but of future events, over which he has some control, and of his own purpose and impulse. At the moment of choice the causes of the future are present, and the agent is one of them, able by moving his own body to determine (sometimes very disproportionately—having his finger on a trigger) the redistribution of matter and energy. That his character and consequent movements depend upon endless chains of antecedents which have brought affairs to this pass

does not occur to him; and if it did, it would not (if he were sane) affect his action; for what does it matter, seeing that he now prefers X to Y? If mechanical causes were self-conscious—say the piston of an engine—they also would feel free in exerting themselves according to their nature (as everything does), although acting without choice. The consciousness of freedom, therefore, is no illusion, but presents the fact; and instead of being in conflict with causation, it is the consciousness of causation in a self-conscious agent pondering the future.

If, indeed, an agent should suppose that his freedom implied an unconditioned character, there would be illusion.

There are cases in which men feel as if their freedom were encroached upon or destroyed. The responsibility of a moral agent is the practical aspect of his freedom which interests others: it is his liability to be influenced in the moment of choice by foreseeing consequences of his action which will ensue from the behaviour of others, besides those consequences which would ensue (without their intervention) in the course of nature. In its most definite form it becomes legal or juridical; and generally the consequences imposed upon the agent by social or political power are painful or intimidating. The agent, then, in view of these penalties, feels that his freedom is encroached upon; because he now chooses X, though, but for them, he would have preferred Y. But here he is mistaken; penalties imply a limit to his political freedom; but his moral freedom remains. If he chooses X from fear, it is because, in the circumstances, fear is a decisive quality of his character. Apart from that the situation is not compulsive: many men have persisted in what they thought right (or even in self-will) in spite of penalties. Such was their character as free agents.

But this does not imply the least infringement of natural law; because, of course, it is true that character is the product of heredity and personal experience, and on its average stability all social confidence depends. Freedom from natural law implies an uncaused cause, either as original creation, or

as an interruption of the course of nature—a new beginning and (so far) a new creation. This is cosmological freedom, and its occurrence cannot be disproved; but it is irrational, in the sense that it ignores the usual assumptions of reasoning; and also because a genuine judgment concerning the unconditioned cannot be formed, since the place of one of its terms is empty. We have seen that judgments concerning Being have the same fault; but there is this difference, that an unconditioned cause is supposed to intervene amongst phenomena, whereas for Being no such claim is made.

Causation, then, does not impair the sense or the fact of freedom in the moment of choice. But Fate or Predestination, if clearly conceived and believed in, would do so; for according to these doctrines the future does not depend upon our choice: events are already determined, not merely (as causation requires) in course of determination. It is true that few people ever really believe in such things.

That character is the result of heredity and experience is, however, of the utmost significance for those who have to deal with a wrong-doer. Toward such an one the rational attitude of the injured person, or of the State, is profoundly affected by this truth. To understand all is not, indeed, to forgive all, but to seek without passion the wisest remedy. And experience has shown that the results of deterrent example and of schemes of reformation for the individual are disappointing, and that care must be directed to the earliest years of those who are born, and to the breeding of those still unbegotten, and to the elimination of the unadaptable, and to such a reformation of the State as to make every man's experience a continual lesson in the good life. Unfortunately, the reformation of the State and all our other problems continually grow more complex and difficult, whilst there is no corresponding expansion of ability amongst those who undertake to solve them.

1 Met. of Nat., chap. xv. § 2.

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LOGICAL ATOMISM

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LOGICAL ATOMISM

THE philosophy which I advocate is generally regarded as a species of realism, and accused of inconsistency because of the elements in it which seem contrary to that doctrine. For my part, I do not regard the issue between realists and their opponents as a fundamental one; I could alter my view on this issue without changing my mind as to any of the doctrines upon which I wish to lay stress. I hold that logic is what is fundamental in philosophy, and that schools should be characterized rather by their logic than by their metaphysic. My own logic is atomic, and it is this aspect upon which I should wish to lay stress. Therefore I prefer to describe my philosophy as "logical atomism," rather than as "realism," whether with or without some prefixed adjective.

by way of preface. I came to philosophy through mathematics, or rather through the wish to find some reason to believe in the truth of mathematics. From early youth, I had an ardent desire to believe that there can be such a thing as knowledge, combined with a great difficulty in accepting much that passes as knowledge. It seemed clear that the best chance of finding indubitable truth would be in pure mathematics, yet some of Euclid's axioms were obviously doubtful, and the infinitesimal calculus, as I was taught it, was a mass of sophisms, which I could not bring myself to regard as anything else. I saw no reason to doubt the truth of arithmetic, but I did not then know that arithmetic can be made to embrace all traditional pure mathematics. At the age of eighteen I read Mill's Logic, but was profoundly dissatisfied with his reasons for accepting

arithmetic and geometry. I had not read Hume, but it seemed to me that pure empiricism (which I was disposed to accept) must lead to scepticism rather than to Mill's support of received scientific doctrines. At Cambridge I read Kant and Hegel, as well as Mr. Bradley's Logic, which influenced me profoxindly. For some years I was a disciple of Mr. Bradley, but about 1898 I changed my views, largely as a result of arguments with G. E. Moore. I could no longer believe that knowing makes any difference to what is known. Also I found myself driven to pluralism. Analysis of mathe, matical propositions persuaded me that they could not be explained as even partial truths unless one admitted pluralism and the reality of relations. An accident led me at this time to study Leibniz, and I came to the conclusion (subsequently confirmed by Couturat's masterly researches) that many of his most characteristic opinions were due to the purely logical doctrine that every proposition has a subject and a predicate. This doctrine is one which Leibniz shares with Spinoza, Hegel, and Mr. Bradley: it seemed to me that, if it is rejected, the whole foundation for the metaphysics of all these philosophers is shattered. I therefore returned to the problem which had originally led me to philosophy, namely, the foundations of mathematics, applying to it a new logic derived largely from Peano and Frege, which proved (at least, so I believe) far more fruitful than that of traditional philosophy.)

In the first place, I found that many of the stock philosophical arguments about mathematics (derived in the main from Kant) had been rendered invalid by the progress of mathematics in the meanwhile. Non-Euclidean geometry had undermined the argument of the transcendental æsthetic. Weierstrass had shown that the differential and integral calculus do not require the conception of the infinitesimal, and that, therefore, all that had been said by philosophers on such subjects as the continuity of space and time and motion must be regarded as sheer error. Cantor freed the conception of infinite number from contradiction, and thus disposed of Kant's antinomies as well as many of Hegel's. Finally Frege showed

in detail how arithmetic can be deduced from pure logic, without the need of any fresh ideas or axioms, thus disproving Kant's assertion that "7+5=12" is synthetic—at least in the obvious interpretation of that dictum. As all these results were obtained, not by any heroic method, but by patient detailed reasoning, I began to think it probable that philosophy had erred in adopting heroic remedies for intellectual difficulties, and that solutions were to be found merely by greater care and accuracy. This view I have come to hold more and more strongly as time went on, and it has led me to doubt whether philosophy, as a study distinct from science and possessed of a method of its own, is anything more than an unfortunate legacy from theology.

4 Frege's work was not final, in the first place because it applied only to arithmetic, not to other branches of mathematics; in the second place because his premises did not exclude certain contradictions to which all past systems of formal logic turned out to be liable. Dr. Whitehead and I in collaboration tried to remedy these two defects, in Principia Mathematica, which, however, still falls short of finality in some fundamental points (notably the axiom of reducibility). But in spite of its shortcomings I think that no one who reads this book will dispute its main contention, namely, that from certain ideas and axioms of formal logic, by the help of the logic of relations, all pure mathematics can be deduced, without any new undefined idea or unproved propositions. The technical methods of mathematical logic, as developed in this book, seem to me very powerful, and capable of providing a new instrument for the discussion of many problems that have hitherto remained subject to philosophic vagueness. Dr. Whitehead's Concept of Nature and Principles of Natural Knowledge may serve as an illustration of what I mean.

When pure mathematics is organized as a deductive system—i.e. as the set of all those propositions that can be deduced from an assigned set of premises—it becomes obvious that, if we are to believe in the truth of pure mathematics, it cannot be solely because we believe in the truth of the set of

premises. Some of the premises are much less obvious than some of their consequences, and are believed chiefly because of their consequences. This will be found to be always the case when a science is arranged as a deductive system. It is not the logically simplest propositions of the system that are the most obvious, or that provide the chief part of our reasons for believing in the system. With the empirical sciences this is evident. Electro-dynamics, for example, can be concentrated into Maxwell's equations, but these equations are believed because of the observed truth of certain of their logical consequences. Exactly the same thing happens in the pure realm of logic; the logically first principles of logic—at least some of them-are to be believed, not on their own account, but on account of their consequences. The epistemological question: "Why should I believe this set of propositions?" is quite different from the logical question: "What is the smallest and logically simplest group of propositions from which this set of propositions can be deduced?" Our reasons for believing logic and pure mathematics are, in part, only inductive and probable, in spite of the fact that, in their logical order, the propositions of logic and pure mathematics follow from the premises of logic by pure deduction. I think this point important, since errors are liable to arise from assimilating the logical to the epistemological order, and also, conversely, from assimilating the epistemological to the logical order. only way in which work on mathematical logic throws light on the truth or falsehood of mathematics is by disproving the supposed antinomies. This shows that mathematics may be true. But to show that mathematics is true would require other methods and other considerations.

One very important heuristic maxim which Dr. Whitehead and I found, by experience, to be applicable in mathematical logic, and have since applied in various other fields, is a form of Ockham's razor. When some set of supposed entities has neat logical properties, it turns out, in a great many instances, that the supposed entities can be replaced by purely logical structures composed of entities which have not such neat

properties. In that case, in interpreting a body of propositions hitherto believed to be about the supposed entities, we can substitute the logical structures without altering any of the detail of the body of propositions in question. This is an economy, because entities with neat logical properties are always inferred, and if the propositions in which they occur can be interpreted without making this inference, the ground for the inference fails, and our body of propositions is secured against the need of a doubtful step. The principle may be stated in the form: "Wherever possible, substitute constructions out of known entities for inferences to unknown entities."

The uses of this principle are very various, but are not intelligible in detail to those who do not know mathematical logic. The first instance I came across was what I have called "the principle of abstraction," or "the principle which dispenses with abstraction." This principle is applicable in the case of any symmetrical and transitive relation, such as equality. (We are apt to infer that such relations arise from possession of some common quality. This may or may not be true; probably it is true in some cases and not in others. But all the formal purposes of a common quality can be served by membership of the group of terms having the said relation to a given term. Take magnitude, for example. Let us suppose that we have a group of rods, all equally long. It is easy to suppose that there is a certain quality, called their length, which they all share. But all propositions in which this supposed quality occurs will retain their truth-value unchanged if, instead of "length of the rod x" we take "membership of the group of all those rods which are as long as x." In various special cases—e.g. the definition of real numbers—a simpler construction is possible.

A very important example of the principle is Frege's definition of the cardinal number of a given set of terms as the class of all sets that are "similar" to the given set—where two sets are "similar" when there is a one-one relation whose domain is the one set and whose converse domain is

the other. Thus a cardinal number is the class of all those classes which are similar to a given class. This definition leaves unchanged the truth-values of all propositions in which cardinal numbers occur, and avoids the inference to a set of entities called "cardinal numbers," which were never needed except for the purpose of making arithmetic intelligible, and are now no longer needed for that purpose.

Perhaps even more important is the fact that classes themselves can be dispensed with by similar methods. Mathematics is full of propositions which seem to require that a class or an aggregate should be in some sense a single entity—e.g. the proposition "the number of combinations of n things any number at a time is 2"." Since 2" is always greater than n, this proposition leads to difficulties if classes are admitted because the number of classes of entities in the universe is greater than the number of entities in the universe, which would be odd if classes were some among entities. Fortunately, all the propositions in which classes appear to be mentioned can be interpreted without supposing that there are classes. This is perhaps the most important of all the applications of our principle. (See *Principia Mathematica*, *20.)

Another important example concerns what I call "definite descriptions," i.e. such phrases as "the even prime," "the present King of England," "the present King of France." There has always been a difficulty in interpreting such propositions as "the present King of France does not exist." The difficulty arose through supposing that "the present King of France" is the subject of this proposition, which made it necessary to suppose that he subsists although he does not exist. But it is difficult to attribute even subsistence to "the round square" or "the even prime greater than 2." In fact, "the round square does not subsist" is just as true as "the present King of France does not exist." Thus the distinction between existence and subsistence does not help us. The fact is that, when the words "the so-and-so" occur in a proposition, there is no corresponding single constituent of the proposition, and when the proposition is fully analysed the

words "the so-and-so" have disappeared. An important consequence of the theory of descriptions is that it is meaning-less to say "A exists" unless "A" is (or stands for) a phrase of the form "the so-and-so." If the so-and-so exists, and x is the so-and-so, to say "x exists" is nonsense. Existence, in the sense in which it is ascribed to single entities, is thus removed altogether from the list of fundamentals. The onto-logical argument and most of its refutations are found to depend upon bad grammar. (See Principia Mathematica, *14.) There are many other examples of the substitution of constructions for inferences in pure mathematics, for example, series, ordinal numbers, and real numbers. But I will pass on to the examples in physics.

Points and instants are obvious examples: Dr. Whitehead has shown how to construct them out of sets of events all of which have a finite extent and a finite duration. In relativity theory, it is not points or instants that we primarily need, but event-particles, which correspond to what, in older language, might be described as a point at an instant, or an instantaneous point. (In former days, a point of space endured throughout all time, and an instant of time pervaded all space. Now the unit that mathematical physics wants has neither spatial nor temporal extension.) Event-particles are constructed by just the same logical process by which points and instants were constructed. In such constructions, however, we are on a different plane from that of constructions in pure mathematics. The possibility of constructing an event-particle depends upon the existence of sets of events with certain properties; whether the required events exist can only be known empirically, if at all. There is therefore no à priori reason to expect continuity (in the mathematical sense), or to feel confident that event-particles can be constructed. If the quantum theory should seem to demand a discrete space-time, our logic is just as ready to meet its requirements as to meet those of traditional physics, which demands continuity. The question is purely empirical, and our logic is (as it ought to be) equally adapted to either alternative.

Similar considerations apply to a particle of matter, or to a piece of matter of finite size. Matter, traditionally, has two of those "neat" properties which are the mark of a logical construction; first, that two pieces of matter cannot be at the same place at the same time; secondly, that one piece of matter cannot be in two places at the same time. Experience in the substitution of constructions for inferences makes one suspicious of anything so tidy and exact. One cannot help feeling that impenetrability is not an empirical fact, derived from observation of billiard-balls, but is something logically necessary. This feeling is wholly justified, but it could not be so if matter were not a logical construction. An immense number of occurrences coexist in any little region of spacetime; when we are speaking of what is not logical construction, we find no such property as impenetrability, but, on the contrary, endless overlapping of the events in a part of spacetime, however small. The reason that matter is impenetrable is because our definitions make it so. Speaking roughly, and merely so as to give a notion of how this happens, we may say that a piece of matter is all that happens in a certain track in space-time, and that we construct the tracks called bits of matter in such a way that they do not intersect. Matter is impenetrable because it is easier to state the laws of physics if we make our constructions so as to secure impenetrability. Impenetrability is a logically necessary result of definition, though the fact that such a definition is convenient is empirical. Bits of matter are not among the bricks out of which the world is built. The bricks are events, and bits of matter are portions of the structure to which we find it convenient to give separate attention.

In the philosophy of mental occurrences there are also opportunities for the application of our principle of constructions versus inferences. The subject, and the relation of a cognition to what is known, both have that schematic quality that arouses our suspicions. It is clear that the subject, if it is to be preserved at all, must be preserved as a construction, not as an inferred entity; the only question is whether the

subject is sufficiently useful to be worth constructing. relation of a cognition to what is known, again, cannot be a straightforward single ultimate, as I at one time believed it to be. Although I do not agree with pragmatism, I think William James was right in drawing attention to the complexity of "knowing." It is impossible in a general summary, such as the present, to set out the reasons for this view. whoever has acquiesced in our principle will agree that here is prima facie a case for applying it. Most of my Analysis of Mind consists of applications of this principle. But as psychology is scientifically much less perfected than physics, the opportunities for applying the principle are not so good. The principle depends, for its use, upon the existence of some fairly reliable body of propositions, which are to be interpreted by the logician in such a way as to preserve their truth while minimizing the element of inference to unobserved entities. The principle therefore presupposes a moderately advanced science, in the absence of which the logician does not know what he ought to construct. Until recently, it would have seemed necessary to construct geometrical points; now it is event-particles that are wanted. In view of such a change in an advanced subject like physics, it is clear that constructions in psychology must be purely provisional.

to assume as part of the ultimate constituents of the world. But logical constructions, like all other constructions, require materials, and it is time to turn to the positive question, as to what these materials are to be. This question, however, requires as a preliminary a discussion of logic and language and their relation to what they try to represent.

The influence of language on philosophy has, I believe, been profound and almost unrecognized. If we are not to be misled by this influence, it is necessary to become conscious of it, and to ask ourselves deliberately how far it is legitimate. The subject-predicate logic, with the substance-attribute metaphysic, are a case in point. It is doubtful whether either would have been invented by people speaking a non-Aryan

language; certainly they do not seem to have arisen in China, except in connection with Buddhism, which brought Indian philosophy with it. Again, it is natural to take a different kind of instance, to suppose that a proper name which can be used significantly stands for a single entity; we suppose that there is a certain more or less persistent being called "Socrates," because the same name is applied to a series of occurrences which we are led to regard as appearances of this one being. As language grows more abstract, a new set of entities come into philosophy, namely, those represented by abstract words—the universals. I do not wish to maintain that there are no universals, but certainly there are many abstract words which do not stand for single universalse.g. triangularity and rationality. In these respects language misleads us both by its vocabulary and by its syntax. We must be on our guard in both respects if our logic is not to lead to a false metaphysic.

Syntax and vocabulary have had different kinds of effects on philosophy. Vocabulary has most influence on common sense. It might be urged, conversely that common sense produces our vocabulary. This is only partially true. A word is applied at first to things which are more or less similar, without any reflection as to whether they have any point of identity. But when once usage has fixed the objects to which the word is to be applied, common sense is influenced by the existence of the word, and tends to suppose that one word must stand for one object, which will be a universal in the case of an adjective or an abstract word. Thus the influence of vocabulary is towards a kind of platonic pluralism of things and ideas.

The influence of syntax, in the case of the Indo-European languages, is quite different. Almost any proposition can be put into a form in which it has a subject and a predicate, united by a copula. It is natural to infer that every fact has a corresponding form, and consists in the possession of a quality by a substance. This leads, of course, to monism, since the fact that there were several substances (if it were a

fact) would not have the requisite form. Philosophers, as a rule, believe themselves free from this sort of influence of linguistic forms, but most of them seem to me to be mistaken in this belief. In thinking about abstract matters, the fact that the words for abstractions are no more abstract than ordinary words always makes it easier to think about the words than about what they stand for, and it is almost impossible to resist consistently the temptation to think about the words.

14 Those who do not succumb to the subject-predicate logic are apt to get only one step further, and admit relations of two terms, such as before-and-after, greater-and-less, rightand-left. Language lends itself to this extension of the subject-predicate logic, since we say "A precedes B," "A exceeds B," and so on. It is easy to prove that the fact expressed by a proposition of this sort cannot consist of the possession of a quality by a substance, or of the possession of two or more qualities by two or more substances. (See Principles of Mathematics, § 214.) The extension of the subject-predicate logic is therefore right so far as it goes, but obviously a further extension can be proved necessary by exactly similar arguments. How far it is necessary to go up the series of three-term, four-term, five-term . . . relations I do not know. But it is certainly necessary to go beyond two-term relations. In projective geometry, for example, the order of points on a line or of planes through a line requires a four-term relation.

A very unfortunate effect of the peculiarities of language is in connection with adjectives and relations. All words are of the same logical type; a word is a class of series, of noises or shapes according as it is heard or read. But the meanings of words are of various different types; an attribute (expressed by an adjective) is of a different type from the objects to which it can be (whether truly or falsely) attributed; a relation (expressed perhaps by a preposition, perhaps by a transitive verb, perhaps in some other way) is of a different type from the terms between which it holds or does not hold. The definition of a logical type is as follows: A and B are of

the same logical type if, and only if, given any fact of which A is a constituent, there is a corresponding fact which has B as a constituent, which either results by substituting B for A, or is the negation of what so results. To take an illustration, Socrates and Aristotle are of the same type, because "Socrates was a philosopher" and "Aristotle was a philosopher" are both facts; Socrates and Caligula are of the same type, because "Socrates was a philosopher" and "Caligula was not a philosopher" are both facts. To love and to kill are of the same type, because "Plato loved Socrates" and "Plato did not kill Socrates" are both facts. It follows formally from the definition that, when two words have meanings of different types, the relations of the words to what they mean are of different types; that is to say, there is not one relation of meaning between words and what they stand for, but as many relations of meaning, each of a different logical type, as there are logical types among the objects for which there are words. This fact is a very potent source of error and confusion in philosophy. In particular, it has made it extraordinarily difficult to express in words any theory of relations which is logically capable of being true, because language cannot preserve the difference of type between a relation and its terms. Most of the arguments for and against the reality of relations have been vitiated through this source of confusion.

At this point, I propose to digress for a moment, and to say, as shortly as I can, what I believe about relations. My own views on the subject of relations in the past were less clear than I thought them, but were by no means the views which my critics supposed them to be. Owing to lack of clearness in my own thoughts, I was unable to convey my meaning. The subject of relations is difficult, and I am far from claiming to be now clear about it. But I think certain points are clear to me. At the time when I wrote The Principles of Mathematics, I had not yet seen the necessity of logical types. The doctrine of types profoundly affects logic, and I think shows what, exactly, is the valid element in the arguments of those who oppose "external" relations. But so far from strengthen-

ing their main position, the doctrine of types leads, on the contrary, to a more complete and radical atomism than any that I conceived to be possible twenty years ago. The question of relations is one of the most important that arise in philosophy, as most other issues turn on it: monism and pluralism; the question whether anything is wholly true except the whole of truth, or wholly real except the whole of reality; idealism and realism, in some of their forms; perhaps the very existence of philosophy as a subject distinct from science and possessing a method of its own. It will serve to make my meaning clear if I take a passage in Mr. Bradley's Essays on Truth and Reality, not for controversial purposes, but because it raises exactly the issues that ought to be raised. But first of all I will try to state my own view, without argument.

22 Certain contradictions—of which the simplest and oldest is the one about Epimenides the Cretan, who said that all Cretans were liars, which may be reduced to the man who says "I am lying "-convinced me, after five years devoted mainly to this one question, that no solution is technically possible without the doctrine of types. In its technical form, this doctrine states merely that a word or symbol may form part of a significant proposition, and in this sense have meaning, without being always able to be substituted for another word or symbol in the same or some other proposition without producing nonsense. Stated in this way, the doctrine may seem like a truism. "Brutus killed Cæsar" is significant, but "Killed killed Cæsar" is nonsense, so that we cannot replace "Brutus" by "killed," although both words have meaning. This is plain common sense, but unfortunately almost all philosophy consists in an attempt to forget it. The following words, for example, by their very nature, sin against it: attribute, relation, complex, fact, truth, falsehood, not, liar, omniscience. To give a meaning to these words, we have to make a détour

I am much indebted to my friend Wittgenstein in this matter. See his *Tractatus Logico-Philosophicus*, Kegan Paul, 1922. I do not accept all his doctrines, but my debt to him will be obvious to those who read his book.

by way of words or symbols and the different ways in which they may mean; and even then, we usually arrive, not at one meaning, but at an infinite series of different meanings. Words, as we saw, are all of the same logical type; therefore when the meanings of two words are of different types, the relations of the two words to what they stand for are also of different types. Attribute-words and relation-words are of the same type, therefore we can say significantly "attribute-words and relation-words have different uses." But we cannot say significantly "attributes are not relations." By our definition of types, since relations are relations, the form of words butes are relations" must be not false, but meaningless, and , the form of words "attributes are not relations," similarly, must be not true, but meaningless. Nevertheless, the statement "attribute-words are not relation-words" is significant and true.

We can now tackle the question of internal and external Prelations, remembering that the usual formulations, on both sides, are inconsistent with the doctrine of types. I will begin with attempts to state the doctrine of external relations. It is useless to say "terms are independent of their relations," because "independent" is a word which means nothing. Two events may be said to be causally independent when no causal chain leads from one to the other; this happens, in the special theory of relativity, when the separation between the events is space-like. Obviously this sense of "independent" is irrele-If, when we say "terms are independent of their relations," we mean "two terms which have a given relation would be the same if they did not have it," that is obviously false; for, being what they are, they have the relation, and therefore whatever does not have the relation is different. If we mean—as opponents of external relations suppose us to mean—that the relation is a third term which comes between the other two terms and is somehow hooked on to them, that is obviously absurd, for in that case the relation has ceased to be a relation, and all that is truly relational is the hooking of the relation to the terms. The conception of the relation as a third term between the other two sins against the doctrine of types, and must be avoided with the utmost care.

- What, then, can we mean by the doctrine of external relations? Primarily this, that a relational proposition is not, in general, logically equivalent formally to one or more subject-predicate propositions. Stated more precisely: Given a relational propositional function "xRy," it is not in general the case that we can find predicates a, β , γ , such that, for all values of x and y, xRy is equivalent to xa, $y\beta$, $(x, y)\gamma$ (where (x, y) stands for the whole consisting of x and y), or to any one or two of these. This, and this only, is what I mean to affirm when I assert the doctrine of external relations; and this, clearly, is at least part of what Mr. Bradley denies when he asserts the doctrine of internal relations.
- . In place of "unities" or "complexes," I prefer to speak of "facts." It must be understood that the word "fact" cannot occur significantly in any position in a sentence where the word "simple" can occur significantly, nor can a fact occur where a simple can occur. We must not say "facts are not simples." We can say, "The symbol for a fact must not replace the symbol for a simple, or vice versa, if significance is to be preserved." But it should be observed that, in this sentence, the word "for" has different meanings on the two occasions of its use. If we are to have a language which is to safeguard us from errors as to types, the symbol for a fact must be a proposition, not a single word or letter. Facts can be asserted or denied, but cannot be named. (When I say "facts cannot be named," this is, strictly speaking, nonsense. What can be said without falling into nonsense is: "The symbol for a fact is not a name.") This illustrates how meaning is a different relation for different types. The way to mean a fact is to assert it; the way to mean a simple is to name it. Obviously naming is different from asserting, and similar differences exist where more advanced types are concerned, though language has no means of expressing the differences.
- There are many other matters in Mr. Bradley's examination

of my views which call for reply. But as my present purpose is explanatory rather than controversial, I will pass them by, having, I hope, already said enough on the question of relations and complexes to make it clear what is the theory that I advocate. I will only add, as regards the doctrine of types, that most philosophers assume it now and then, and few would deny it, but that all (so far as I know) avoid formulating it precisely or drawing from it those deductions that are inconvenient for their systems.

I come now to some of Mr. Bradley's criticisms (loc. cit p. 280 ff.). He says:—

"Mr. Russell's main position has remained to myself incomprehensible. On the one side I am led to think that he defends a strict pluralism, for which nothing is admissible beyond simple terms and external relations. On the other side Mr. Russell seems to assert emphatically, and to use throughout, ideas which such a pluralism surely must repudiate. He throughout stands upon unities which are complex and which cannot be analysed into terms and relations. These two positions to my mind are irreconcilable, since the second, as I understand it, contradicts the first flatly."

With regard to external relations, my view is the one I have just stated, not the one commonly imputed by those who disagree. But with regard to unities, the question is more difficult. The topic is one with which language, by its very nature, is peculiarly unfitted to deal. I must beg the reader, therefore, to be indulgent if what I say is not exactly what I mean, and to try to see what I mean in spite of unavoidable linguistic obstacles to clear expression.

To begin with, I do not believe that there are complexes or unities in the same sense in which there are simples. I did believe this when I wrote *The Principles of Mathematics*, but, on account of the doctrine of types, I have since abandoned this view. To speak loosely, I regard simples and complexes as always of different types. That is to say, the statements "There are simples" and "There are complexes" use the words "there are" in different senses. But if I use the words

"there are" in the sense which they have in the statement "there are simples," then the form of words "there are not complexes" is neither true nor false, but meaningless. This shows how difficult it is to say clearly, in ordinary language, what I want to say about complexes. In the language of mathematical logic it is much easier to say what I want to say, but much harder to induce people to understand what I mean when I say it.

30 When I speak of "simples" I ought to explain that I am speaking of something not experienced as such, but known only inferentially as the limit of analysis. It is quite possible that, by greater logical skill, the need for assuming them could be avoided. A logical language will not lead to error if its simple symbols (i.e. those not having any parts that are symbols, or any significant structure) all stand for objects of some one type, even if these objects are not simple. The only drawback to such a language is that it is incapable of dealing with anything simpler than the objects which it represents by simple symbols. But I confess it seems obvious to me (as it did to Leibniz) that what is complex must be composed of simples, though the number of constituents may be infinite. It is also obvious that the logical uses of the old notion of substance (i.e. those uses which do not imply temporal duration) can only be applied, if at all, to simples; objects of other types do not have that kind of being which one associates with substances. The essence of a substance, from the symbolic point of view, is that it can only be named-in old-fashioned language, it never occurs in a proposition except as the subject or as one of the terms of a relation. If what we take to be simple is really complex, we may get into trouble by naming it, when what we ought to do is to assert it. For example, if Plato loves Socrates, there is not an entity "Plato's love for Socrates," but only the fact that Plato loves Socrates. And in speaking of this as "a fact," we are already making it more substantial and more of a unity than we have any right to do.

Attributes and relations, though they may be not susceptible

of analysis, differ from substances by the fact that they suggest a structure, and that there can be no significant symbol which symbolizes them in isolation. All propositions in which an attribute or a relation seems to be the subject are only significant if they can be brought into a form in which the attri-If this were not the bute is attributed or the relation relates. case, there would be significant propositions in which an attribute or a relation would occupy a position appropriate to a substance, which would be contrary to the doctrine of types, and would produce contradictions. Thus the proper symbol for "vellow" (assuming for the sake of illustration that this is an attribute) is not the single word "yellow," but the propositional function "x is yellow," where the structure of the symbol shows the position which the word "yellow" must have if it is to be significant. Similarly the relation "precedes" must not be represented by this one word, but by the symbol "x precedes y," showing the way in which the symbol can occur significantly. (It is here assumed that values are not assigned to x and y when we are speaking of the attribute or relation itself.)

The symbol for the simplest possible kind of fact will still be of the form "x is yellow" or "x precedes y," only that "x" and "y" will be no longer undetermined variables, but names.

In addition to the fact that we do not experience simples of as such, there is another obstacle to the actual creation of a correct logical language such as I have been trying to describe. This obstacle is vagueness. All our words are more or less infected with vagueness, by which I mean that it is not always clear whether they apply to a given object or not. It is of the nature of words to be more or less general, and not to apply only to a single particular, but that would not make them vague if the particulars to which they applied were a definite set. But this is never the case in practice. The defect, however, is one which it is easy to imagine removed, however difficult it may be to remove it in fact.

The purpose of the foregoing discussion of an ideal logical

language (which would of course be wholly useless for daily life) is twofold: first, to prevent inferences from the nature of language to the nature of the world, which are fallacious because they depend upon the logical defects of language; secondly, to suggest, by inquiring what logic requires of a language which is to avoid contradiction, what sort of a structure we may reasonably suppose the world to have. I am right, there is nothing in logic that can help us to decide between monism and pluralism, or between the view that there are ultimate relational facts and the view that there are none. My own decision in favour of pluralism and relations is taken on empirical grounds, after convincing myself that the à priori arguments to the contrary are invalid. But I do not think these arguments can be adequately refuted without a thorough treatment of logical types, of which the above is a mere sketch. This brings me, however, to a question of method which I believe to be very important. What are we to take as data in philosophy? What shall we regard as having the greatest likelihood of being true, and what as proper to be rejected if it conflicts with other evidence? It seems to me that science has a much greater likelihood of being true in the main than any philosophy hitherto advanced (I do not, of course, except my own). In science there are many matters about which people are agreed; in philosophy there are none. Therefore, although each proposition in a science may be false, and it is practically certain that there are some that are false, yet we shall be wise to build our philosophy upon science, because the risk of error in philosophy is pretty sure to be greater than in science. If we could hope for certainty in philosophy the matter would be otherwise, but so far as I can see such a hope would be chimerical.

Of course those philosophers whose theories, prima facie, run counter to science always profess to be able to interpret science so that it shall remain true on its own level, with that minor degree of truth which ought to content the humble scientist. Those who maintain a position of this sort are bound—so it seems to me—to show in detail how the inter-

pretation is to be effected. In many cases, I believe that this would be quite impossible. I do not believe, for instance, that those who disbelieve in the reality of relations (in some such sense as that explained above) can possibly interpret those numerous parts of science which employ asymmetrical relations. Even if I could see no way of answering the objections to relations raised (for example) by Mr. Bradley, I should still think it more likely than not that some answer was possible, because I should think an error in a very subtle and abstract argument more probable than so fundamental a falsehood in science. Admitting that everything we believe ourselves to know is doubtful, it seems, nevertheless, that what we believe ourselves to know in philosophy is more doubtful than the detail of science, though perhaps not more doubtful than its most sweeping generalizations.

The question of interpretation is of importance for almost every philosophy, and I am not at all inclined to deny that many scientific results require interpretation before they can be fitted into a coherent philosophy. The maxim of "constructions versus inferences" is itself a maxim of interpretation. But I think that any valid kind of interpretation ought to leave the detail unchanged, though it may give a new meaning to fundamental ideas. In practice, this means that structure must be preserved. And a test of this is that all the propositions of a science should remain, though new meanings may be found for their terms. A case in point, on a nonphilosophical level, is the relation of the physical theory of light to our perceptions of colour. This provides different physical occurrences corresponding to different seen colours, and thus makes the structure of the physical spectrum the same as that of what we see when we look at a rainbow. Unless structure is preserved, we cannot validly speak of an interpretation. And structure is just what is destroyed by a monistic logic.

I do not mean, of course, to suggest that, in any region of science, the structure revealed at present by observation is exactly that which actually exists. On the contrary, it is in

the highest degree probable that the actual structure is more fine-grained than the observed structure. This applies just as much to psychological as to physical material. It rests upon the fact that, where we perceive a difference (e.g. between two shades of colour), there is a difference, but where we do not perceive a difference it does not follow that there is not a difference. We have therefore a right, in all interpretation, to demand the preservation of observed differences, and the provision of room for hitherto unobserved differences, although we cannot say in advance what they will be, except when they can be inferentially connected with observed differences.

In science, structure is the main study. A large part of the importance of relativity comes from the fact that it has substituted a single four-dimensional manifold (space-time) for the two manifolds, three-dimensional space and one-dimensional time. This is a change of structure, and therefore has far-reaching consequences, but any change which does not involve a change of structure does not make much difference. The mathematical definition and study of structure (under the name of "relation-numbers") form Part IV of Principia Mathematica.

The business of philosophy, as I conceive it, is essentially that of logical analysis, followed by logical synthesis. Philosophy is more concerned than any special science with relations of different sciences and possible conflicts between them; in particular, it cannot acquiesce in a conflict between physics and psychology, or between psychology and logic. Philosophy should be comprehensive, and should be bold in suggesting hypotheses as to the universe which science is not yet in a position to confirm or confute. But these should always be presented as hypotheses, not (as is too often done) as immutable certainties like the dogmas of religion. Although, moreover, comprehensive construction is part of the business of philosophy, I do not believe it is the most important part. The most important part, to my mind, consists in criticizing and clarifying notions which are apt to be regarded as fundamental and accepted uncritically. As instances I might men-

tion: mind, matter, consciousness, knowledge, experience, causality, will, time. I believe all these notions to be inexact and approximate, essentially infected with vagueness, incapable of forming part of any exact science. Out of the original manifold of events, logical structures can be built which will have properties sufficiently like those of the above common notions to account for their prevalence, but sufficiently unlike to allow a great deal of error to creep in through their acceptance as fundamental.

I suggest the following as an outline of a possible structure of the world; it is no more than an outline, and is not offered as more than possible.

The world consists of a number, perhaps finite, perhaps infinite, of entities which have various relations to each other, and perhaps also various qualities. Each of these entities may be called an "event"; from the point of view of oldfashioned physics, an event occupies a short finite time and a small finite amount of space, but as we are not going to have an old-fashioned space and an old-fashioned time, this statement cannot be taken at its face value. Every event has to a certain number of others a relation which may be called "compresence"; from the point of view of physics, a collection of compresent events all occupy one small region in spacetime. One example of a set of compresent events is what would be called the contents of one man's mind at one timei.e. all his sensations, images, memories, thoughts, etc., which can coexist temporally. His visual field has, in one sense, spatial extension, but this must not be confused with the extension of physical space-time; every part of his visual field is compresent with every other part, and with the rest of "the contents of his mind" at that time, and a collection of compresent events occupies a minimal region in space-time. There are such collections not only where there are brains, but everywhere. At any point in "empty space," a number of stars could be photographed if a camera were introduced: we believe that light travels over the regions intermediate between its source and our eyes, and therefore something is happening

in these regions. If light from a number of different sources reaches a certain minimal region in space-time, then at least one event corresponding to each of these sources exists in this minimal region, and all these events are compresent.

We will define a set of compresent events as a "minimal region." We find that minimal regions form a four-dimensional manifold, and that, by a little logical manipulation, we can construct from them the manifold of space-time that physics requires. We find also that, from a number of different minimal regions, we can often pick out a set of events, one from each, which are closely similar when they come from neighbouring regions, and vary from one region to another according to discoverable laws. These are the laws of the propagation of light, sound, etc. We find also that certain regions in space-time have quite peculiar properties; these are the regions which are said to be occupied by "matter." Such regions can be collected, by means of the laws of physics, into tracks or tubes, very much more extended in one dimension of space-time than in the other three. Such a tube constitutes the "history" of a piece of matter; from the point of view of the piece of matter itself, the dimension in which it is most extended can be called "time," but it is only the private time of that piece of matter, because it does not correspond exactly with the dimension in which another piece of matter is most extended. Not only is space-time very peculiar within a piece of matter, but it is also rather peculiar in its neighbourhood, growing less so as the spatio-temporal distance grows greater; the law of this peculiarity is the law of gravitation.

All kinds of matter to some extent, but some kinds of matter (viz. nervous tissue) more particularly, are liable to form "habits," i.e. to alter their structure in a given environment in such a way that, when they are subsequently in a similar environment, they react in a new way, but if similar environments recur often, the reaction in the end becomes nearly uniform, while remaining different from the reaction on the first occasion. (When I speak of the reaction of a piece of matter to its environment, I am thinking both of the con-

stitution of the set of compresent events of which it consists, and of the nature of the track in space-time which constitutes what we should ordinarily call its motion; these are called a "reaction to the environment" in so far as there are laws correlating them with characteristics of the environment.) Out of habit, the peculiarities of what we call "mind" can be constructed: a mind is a track of sets of compresent events in a region of space-time where there is matter which is peculiarly liable to form habits. The greater the liability, the more complex and organized the mind becomes. Thus a mind and a brain are not really distinct, but when we speak of a mind we are thinking chiefly of the set of compresent events in the region concerned, and of their several relations to other events forming parts of other periods in the history of the spatiotemporal tube which we are considering, whereas when we speak of a brain we are taking the set of compresent events as a whole, and considering its external relations to other sets of compresent events, also taken as wholes; in a word, we are considering the shape of the tube, not the events of which each cross-section of it is composed.

The above summary hypothesis would, of course, need to be amplified and refined in many ways in order to fit in completely with scientific facts. It is not put forward as a finished theory, but merely as a suggestion of the kind of thing that may be true. It is of course easy to imagine other hypotheses which may be true, for example, the hypothesis that there is nothing outside the series of sets of events constituting my history. I do not believe that there is any method of arriving at one sole possible hypothesis, and therefore certainty in metaphysics seems to me unattainable. In this respect I must admit that many other philosophies have the advantage, since in spite of their differences inter se, each arrives at certainty of its own exclusive truth.

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WHY HUMANISM?

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WHY HUMANISM?

I

BEHIND all philosophy lies human nature, and in every philosopher there lurks a man. The reason why philosophy is mostly so obscure is that we are (not unreasonably) ashamed of ourselves. We are ashamed of human nature, and therefore claim for what is reputed best in us, our thoughts, that they soar far above it, and must win the absolute approval of intelligence as such. We are ashamed of ourselves, and therefore camouflage our motives and our ends. Unfortunately this camouflage too often succeeds in deceiving even ourselves: hence there are many philosophies which are, and will ever be, more or less unintelligible, simply because we do not know enough about the men who made them, and so cannot grasp the central idiosyncrasy that held together what to an outside observer seems their incongruous contents. In other cases we have material enough to reconstruct the author's mind: we can then often prove of them what we can suspect in all, viz., that the philosopher, in his exposition, deliberately inverted the natural order of his thinking. His conclusions were his starting-point, and his premisses were painfully sought out to support them. But a philosopher should not be too severely blamed for this sort of thing: he is no more bound than other men to give himself awav.

Neither is it surprising that the philosopher's nature should shrink from encountering the real, unequipped, unfortified, and undisguised: he feels it to be "all too human" to be exposed to the encounter. Academic decorum therefore demands that many of its parts should be ignored and decently hidden away

So we idealize it at what we take to be its best, and, clothing it in fabrics (or fabrications) cunningly woven of words, surround it with a spiritual atmosphere of convention and make-believe that softens its stark outlines. So long and earnestly have we laboured at such devices that by now the philosopher who seeks the naked truth finds himself enmeshed in a network of fictions more tenacious than Vulcan's net, and immersed in an atmosphere of illusion thicker than any London fog; he needs unusual strength and clearsightedness to break out into the open air and face the facts. Only the intensest love of truth and the highest intellectual and moral courage will nerve him even to raise the question whether the parties honteuses of the soul are as dangerous and disreputable as they are supposed to be.

II

Now experience shows that perhaps the subtlest and most effective of such devices for 'sublimating' human nature is connected with the defining of the provinces of the various sciences, and the allocating to each of its proper field of operation. In the process of drawing the line between two adjacent sciences that operate upon the same data, it is quite easy to drop out of sight any feature in human nature which it is desired officially to suppress. The sciences concerned are simply so defined that neither the one nor the other can technically recognize the existence of the obnoxious feature. In this way extensive and vitally important portions of human nature are thrust out of the jurisdiction of science, and are outlawed. This procedure is always in our power: it is quite arbitrary, and, indeed, a mere trick, but none the less effective for that.

Especially when it is played upon the very powers whereby we generate the sciences. The sciences are in all cases fruits of special attention and inquiry directed upon some salient aspect of (apparent) reality: consequently they all rest upon human interest and human selection. Now as such selection necessarily and intentionally neglects what, for the time being it is not interested in, or does not regard as helpful, it may be

denominated an abstraction; but if anyone challenges such an abstraction as erroneous or useless or neglectful of the relevant, it should always be possible to justify the abstraction, if it is a good one. The justification will take the form—' I am perfectly aware that I have not considered the whole of reality, but have picked out a part. But I had no need to consider the whole-which by the way no one can do-and I had a right to pick out the part in which I am interested, and which is important, and sufficient, and valuable for my purpose. Surely you do not dispute my right to concentrate upon whatever suits me, and whatever I need? For unless I did that, no science could arise or serve any useful purpose. You may call my selection an abstraction, if you please; but it is a good abstraction, because it yields a good science. For in the last resort a science is good or bad according as it shows itself convenient or otherwise, for the human purposes concerned with it: that is the difference between a science and a mere game with abstractions, and it is the ultimate test to apply.'

To this it is customary to reply that any subordination of science to any human interest derogates from the dignity of science. It sullies the 'purity' of science. It lowers its 'ideal.' It contaminates it with human errors and vices. It humanizes what should be deified, and thus deprives humanity of the superhuman support which the sciences could give if they were conceived as transcending human frailty. Above all, it would so enormously complicate scientific problems if at every step reference had to be made to human personality, purposes and motives, that nothing recognizable as science could result. In short, science must depersonalize and dehumanize itself in self-defence.

III

There is so much speciousness about this rejoinder that to discover how much substance there is in it, and to avoid an inconclusive wrangle, it will be well to examine a leading case where the trick under discussion has long been practised,

flagrantly and with signal success. I mean the case of Logic and Psychology. These two sciences are evidently concerned with the same subject-matter, the cognitive operations of human beings and all that appertains thereto. It is evident, therefore, that they must be defined as viewing these operations differently and with different intent. But it is not evident that these differences should lead to any conflict, or even to lack of cooperation, between logic and psychology. Nor is it evident that they must be defined in such a way that everything logical should have to be regarded as transcending psychology, everything psychological as a hindrance to logic, and everything human as irrelevant to both logic and psychology.

IV

Yet this is precisely what has been done. Psychology has been defined as a descriptive science, concerned with (mental) facts and processes, but not concerned with their function. meaning, and value; if it was barely allowed to mention these as existing in fact, it was at any rate prohibited from recognizing their significance. On the other hand, by 'description,' more was meant than met the eye. The 'description' was intended to be of a particular sort, viz., that which naturally suggests itself to an external observer. Psychological descriptions were to catalogue the contents of the mind in terms derived from external observation, and as if they were objects in the external world. The fact that they weren't, and behaved quite differently, was to be ignored. Psychology must do as the other sciences all did: for how else could its psychologizing be scientific? Still more improper was it to allude to psychical facts which were not, and could not be, 'objects' at all. Hence such things as activities and attitudes, as personality, and, above all, as the subject or self, not being really things at all, had to be denied, or else explained away. For the reason, once again, that in the observations of the other sciences, no inquiry was made into the observer. By way of reward for their submissiveness. to these tabus psychologists were permitted to revel in 'parts'

of the soul, 'faculties,' and 'elements,' in their 'relations,' 'associations,' 'fusions,' and 'complications,' ad nauseam and ad absurdum. For as these were all conceived as thing-like entities, no check of the vagaries of psychological imagining was called for. Within these limits psychologies could go as they pleased. No test, no reckoning was demanded of them. No proof was required that the entities they talked about actually existed, and could compose a mind. Not even the logical absurdity of the claim to distinguish 'elements' which could (admittedly) never be isolated or observed 'pure,' not even the arbitrariness of 'analyses' which were verified by no synthesis, could moderate the exuberance of psychological theories which neither possessed nor claimed any power to predict and control the actual course of psychic life. For was not psychology a free and pure 'theoretic' science that could neither learn from practice nor instruct it?

V

Logic fared still worse under the arbitrary restrictions imposed on it by its definition. The first condition to which an object of logical contemplation had to submit was that it had to sever itself from its whole natural context. It was called upon in the sacred name of Logic to disavow its origin after the flesh, all its human relations and attachments, and all earthly aims. The actual judgment, as it occurs in fact, is a human and personal act through and through, and essentially part of a personal train of thought, which arises in an individual mind at some particular time and place. Accordingly it is prompted by some interest, or incited by some imperative need; it is accompanied by emotions, and aims at the satisfaction of some desired end. Its procedure, moreover, appears to be quite high-handed, not to say self-willed: it selects its object and runs infinite risks of error in so doing; it experiments with ideas, it resolves doubts, answers questions, and decides between alternatives. has thus a varied past, and expects to have a future. For it looks forward to its verification, and leads on to other judgments,

without end. Moreover, it has personal relations with its maker. It claims to express his meaning and to serve his purpose. Lastly, it lays claim to value: it claims to be the best and truest judgment he could have made under the circumstances. For else would he not have made another?

Such are the plain and undeniable features of every actual judgment, and it might be supposed that Logic would be glad to notice them. But not at all: the traditional definitions of logic all require it to set them aside as logically irrelevant, or disastrous. 'Logic' prefers to deal with 'propositions,' i.e. with depersonalized strings of words, which may be used to convey (various) meanings by various persons at various times, but are actually devoid of meaning as they stand. It then becomes, not a study of thought, but of the verbal implications of 'dictionary-meanings.' This is the procedure of formal Logic which has been academically taught as the theory of thought for over two thousand years, although it is doubtful whether any one has ever used it in his own thinking."

Or else, if the term 'judgment' is retained, it is only on condition that it is depersonalized and dehumanized, until it can no longer exist, certainly on earth, and probably in heaven. To fit it for 'logical' use the judgment has in the first place to be purged of all taint of the psychic and 'subjective' milieu in which it was born. This involves the repudiation of its whole human ancestry and antecedents, of its date and place in the world, of its use and function, of its purposiveness, of the meaning it was intended to convey. In return for these sacrifices it is promised an apotheosis. It is promised 'eternal' (or at least timeless) truth, 'universality,' formal validity and immunity from error, a prospect of 'absolute' truth, and a diviner meaning in place of that which it had to jettison. For it is now assured that it never meant, or could mean, what its maker meant, and wanted it to mean, but always unwittingly aspired to a loftier destiny. As made, it was a poor and partial thing, a mere selection from the infinite wealth of the totality

Mr. F. H. Bradley is emphatic that he has not. Cf. Principles of Logic, 2nd ed., pp. 534, 621.

of reality, and vitiated to the core by unexpressed and unknown conditions, exposing it for ever to invasions from the circumambient whole, and destroying its truth. Surely no self-respecting judgment could endure so precarious a lot: it must aim at expanding and re-stating itself until it was enabled to express the whole truth and nothing but the truth. Thus would all judgments ultimately be glorified by one and the same meaning, and transfigured by referring to the Absolute Reality.

VI

True, these dazzling promises, which rest on an obliteration of the distinction between logic and metaphysics, are not kept. It turns out before long that no judgment, no discursive thought, in 'relational form' can reach the Absolute, or become absolutely true; nor can any validity of form guarantee correctness of application, and so real truth. Nor, lastly, can any judgment quite escape from its entanglement in psychical irrelevance. What, however, finally becomes of these artefacts of 'Logic,' the all-embracing judgment and the self-developing inference, is not made clear. They are too feeble to rise to the Absolute, too mutilated to return to earth. After their failure, 'Logic' appears to lose its interest in them, and leaves them to flit about the region of 'appearance' in ghostly guise, incapable alike of full truth and full blown error, and impotent to affect the actual reasonings of men.

Thus 'Logic,' so defined, fails in the end to make good its own claim.² But even if metaphysical logic could keep its delusive promises, two important questions would remain unanswered. In the first place, what meaning and what value does this 'logic' allow to the procedures and problems of human thinking? The answer is plainly None!—they simply drop out. The facts of human thinking and knowing are non-suited, both in 'Logic' and in Psychology, and can make themselves heard in neither. But, secondly, they nevertheless

Bradley, op. cit. pp. 618, 619.

^{*} Cf. Bradley, op. cit., p. 601.

continue to exist. So what is to be done with them? 'Logic' cannot say: but man must insist that, if they are facts, they can be studied scientifically, and that their study will be infinitely more important than either 'Logic' or 'Psychology.'

VII

A similar tour de force is played with the antithesis of 'theory' and 'practice.' It is first assumed that this antithesis is absolute, and then inferred that there can be no necessary or inherent connexion between theory and practice. It matters not that this is a pure assumption, and moreover one which runs directly counter to a multitude of facts. If it is true, how is it that 'practical' needs are continuously setting on foot theoretic inquiries, and that theoretic speculations are continually conducting to practical applications, or that practical success is so potent in silencing theoretic doubt, and that theoretic certainty is sensibly enhanced by practical confirmation? These relations can hardly all be entirely fortuitous, and they forcibly suggest that the initial definitions of 'theory' and 'practice' as absolutely different were simply devices for obscuring the facts which connect them, and reveal them both as contributory to the ends of human life.

This suspicion is confirmed when the notion of 'pure theory' is confronted with the facts of scientific inquiry; for it then appears to be a psychical fact that there is no such thing as a truly 'disinterested' inquiry. All inquiry seems to be inspired by an interest—even if it is no better than sheer curiosity—and to aim at a good that is worth pursuing in the inquirer's eyes. Furthermore, his whole inquiry is an activity in which every step is one he wills to take, and so his act. Hence a 'pure' thought that does not aim at ends ('goods') to be achieved by the activity, appears to be psychologically impossible. If it were not, it would be a game and a frivolity: but even games have their uses and practical value, biologically and sociologically, even though those who play them may be unaware of them, and may be indulging only in the satisfaction

of an instinct. Is it clear, then, that if we take 'practical' widely enough, as meaning 'concerned with the business of living,' not only does its antithesis to 'theoretic' become relative, but all our thoughts and all our acts must be 'practical'? For good or evil; for even our most irrational, trivial, and futile acts must have a bearing on our success in life.

VIII

Have the foregoing sections explained and justified the adoption of the name 'Humanism' by the systematic protest 'against the artificial elimination of the human aspects of knowing in the intellectualist versions of logic and psychology? Has it also become clear that there is nothing emotional or irrational in this protest? It is not asserted that intellectualism is reprehensible or repugnant as such; it is not denied that (up to a point at any rate) alternative descriptions may be framed, or even that for different purposes different descriptions and demarcations may be found convenient. Neither is it denied that the terminology of intellectualism is one of the persistent dialects of philosophy. Only it is not the dialect in which to describe the intelligence of a living being. It rests on abstractions which are, biologically, incredible. The objection to actual intellectualism, therefore, is that it misrepresents our intelligence, and does not render our actions intelligible. The objection to actual rationalism is that its attempt to reduce everything to a dehumanized 'Reason' makes everything unreasonable. And the objection to both is that they leave out far too much, and, on their own showing, fail to make intelligible even the few facts they are willing to acknowledge. Is it not high time therefore to try whether a more activistic or voluntaristic interpretation will not prove more comprehensive and more comprehensible?

IX

Humanist Voluntarism, then, though it aims at superseding Rationalism, is not the foe of reason. Only it refuses to ignore

the behaviour of human reason and to cut it adrift from the human life it ought to guide. It thinks the a priori reasons given for this severance bad. It prefers to take 'reason' as it empirically finds it, and to study it in life, active and free, and not in vitro, dead, bottled up, and preserved in spirits. Similarly, it does not mean anything metaphysical by 'will' (like Schopenhauer), nor commit itself to any fiction of a special 'faculty.' It uses 'will' merely as a convenient term for recognizing an all-pervasive and essential feature in human life, to wit the active side of our nature, which it thinks has been unjustly and disastrously ignored for the reasons analysed in §§ II-VI. And it believes that its recognition would have a very beneficial and clarifying effect on a number of important philosophic problems which have hitherto defied solution.

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For example, it throws a new light on the old controversy about the origin of knowledge, which Rationalism and Empiricism have carried on so inconclusively, mediating between these extremes, and showing where each was right and each was wrong.

In the first place only the maddest rationalism could really hold that experience was valueless and totally irrelevant to knowledge. Rationalisms have sometimes been driven very nearly into such assertions; but against their will. They were usually content to maintain—and did tenaciously maintain—that experience (as described) could not account for all that was implied in knowledge. Certain truths—or at any rate certain forms of thought—could not come from experience, because the experience from which they were said to be derived could only arise in a mind already possessed of these forms. Consequently it was inferred that these forms must be a priori, prior to experience, and rooted in some superior region of the mind.

After long debate, rationalism had so far succeeded in making out its case. But its victory was far from complete, and it

had not made out its claim that the defeat of (a particular sort of) empiricism was ipso facto proof positive of its own contentions. And it had made use of some pretty precarious inferences. It had begun by establishing a negative; not all knowledge could come from experience. To pass from that to 'therefore it must be a priori' was not cogent; 'therefore experience must have been misdescribed' was a possible alternative. And even after the a priori had been reached, its meaning was very vague, and nearly negative; it meant little but 'what cannot be traced to experience.' And to rest one's positive account of knowledge on a presumed inability of one's adversary to account for it was a precarious proceeding, because a new way of conceiving experience, or deriving the 'a priori' from it, might at any time invalidate the case for the a priori of rationalism. Also 'a priori' was so vague a term as to cover almost anything; it left rationalism ample licence in filling in the bare outlines of the a priori. But the rationalist mythologies, which attempted to describe the a priori nature and structure of the soul, all seemed highly improbable and incredible, from Plato's day to Hegel's. Finally it has to be observed that to defeat empiricism is not to utilize experience, and to vindicate an a priori is not enough to make knowledge intelligible, so long as it is analysed into two alien and hostile factors that are tied together, but not enabled to work together.

Empiricism, on the other hand, though technically defeated, was not rendered powerless. It had incurred defeat by its own mistakes in stating its principle and by its perversity in adopting that of its adversary. For it had not come to the study of experience with an open mind, but with a parti pris, with a prejudice as to its nature. It had recognized nothing in experience but what could be set down to passive receptivity of 'impressions,' and had thereby ruled out the possibility that the knower might react upon his impressions and manipulate them selectively, appropriating some and ignoring others, according to his needs, nay, going so far as to make demands on nature and experimenting with it in order to extract responses to his questions and satisfactions of his desires. Now, in ruling

out these fairly obvious possibilities, what was empiricism

exhibiting but a priori prejudice?

Accordingly there is room for an improved version on both sides. The field is open for a new empiricism and for a new conception of the a priori. After all, a certain apriorism enters into every empiricism, in that, to begin with, it has to decide what shall count as 'experience.' Most empiricisms are very selective, and rule out a priori such stuff as dreams, hallucinations, and various sorts of 'abnormal' experience. Similarly, every apriorism becomes at a certain point empirical. It must claim for its a priori structures existence as empirical fact. And that they are such as they are, and not otherwise, must be just fact too. As, then, the two sides seem to converge, these two novelties may well turn out to be one and the same. If, among the facts of experience, the empiricist is willing to include an actively inquiring mind, he will be able to explain how a knower can use conceptions that do not 'come from experience,' and yet are not 'prior' to it, seeing that they are suggested by it, and adopted long before they are proved, because they seem acceptable and desirable, and likely to give satisfaction when verified. Such conceptions would be essentially postulates, suggested, no doubt, by experience (more or less directly), but really rooted in the demands and cravings of the subject, and thereafter brought to the interpretation of experience, and more or less forced upon it. But though subjective in origin, they may clearly acquire objective validity. For after solipsism has been repudiated as practically untenable, experience has to be conceived as a joint product, which is what it is because the subject is affected by other beings that are also active. Hence to try a postulate is one thing, to succeed with it is another. Of the postulates that are tried—and their name is legion-many have to be abandoned, like those of 'magic' and of 'superstition': others remain precarious and more or less 'matters of faith,' like those of religion; only a few rise to be unquestioned axioms. 1

Similarly, if the apriorist will consent to go into the question Cf. "Axioms as Postulates" in Personal Idealism, especially § 8-27. how a priori?, he will see that the a priori need not be a piece of mental furniture, nor a coercive 'necessity of thought.' It need not be rooted in what he considers 'thought' at all, but may proceed from activity or 'will.' Thus desire or will, alias our whole purposive nature, may generate the preconceptions or demands with which we approach the given, and which we try to realize. After which experience will have its say as before, and decide whether they are to be ratified or rejected. For, of course, the stubborn nature of things may defeat our endeavours.

Thus our final 'knowledge' will be neither wholly a priori nor wholly empirical. It will be a product of the continual interplay and interaction of the knower and his world, and will owe its character to both. It is evident that this theory regards both factors as essential, utilizes both, and combines them in the closest intimacy. Thus it does justice to everything that was valuable in both empiricism and apriorism, and really effects their synthesis. Knowledge becomes a continuously developing process to which no term need be set.

XI

For confirmation of this account of knowledge Humanism can confidently appeal to the procedure of the sciences. This has been systematically misrepresented by formal logicians, who have been unwilling to recognize that it is concerned with probable, and not with 'formally valid,' reasoning, and so have laboured to force methods of discovery into conformity with their (unrealizable) 'ideals' of proof. But if scientific procedure be studied, not in its dogmatic re-statement in terms of the current orthodoxy and with its delusive claim to finality, but in its historical development, it will soon be evident that it neither has, nor really claims, the finality, certainty, and absoluteness with which it is decorated, and, so far from being fixed, static, and eternal, is essentially in process and undergoes

Cf. Dr. Singer's Studies in the History and Methods of Science, p. 235 f., vol. i.

continuous transformation—for the better. The scientist who understands his method never dreams of saying: 'All have been in error hitherto, but now I have discovered the absolute truth,' any more than he says: 'Nothing but sheer coercion will make me acknowledge a truth.' He is content to work out slightly better methods than his predecessors, and to use any assumption he needs.

Actually scientific truth arises out of needs and problems, urgent or interesting, or, as Dewey says, out of the constant need to reconstruct our beliefs in order to adapt them to the varying situations of life. These problems we endeavour to solve by hypotheses, which are not idle, but are meant to be used. Their value is tested by their working, and to survive they have to be verified. If, that is, the consequences they predict occur in fact, if they really give us control over events, their claim to truth is confirmed; if they fail, and are falsified by the facts, they are scrapped—unless they are supported by very strong postulates which prompt us to modify them and to try again. But no amount of verification ever amounts to absolute and final proof; its very form involves it in the formal flaw of 'affirming the consequent.' Hence we can never argue that because the deductions from a theory have come true, the theory is true: the same deductions, and more, might be drawn from another (and better) theory. So the most that can be claimed for a theory is that it is the best and truest up to date, and science never renounces the hope of finding one better and truer still. Hence scientific truth is essentially improvable and progressive. It progresses by the continuous correction of 'errors' (= truths of inferior value), and the continual augmentation of the value of the truths accepted. Thus no truth is eternal; every truth has its day. But this does not matter so long as sufficient for the day is the truth thereof.

Now all this implies that no scientific truth is incorrigibly absolute and final. For if it were, it could not be improved upon. Language recognizes this, when it equips 'true' with a comparative and a superlative. History, moreover, shows that scientific truths are improvable; the more progressive a

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science is, the more quickly do its 'truths' pass into 'errors,' and yield their title to superior successors.

This interpretation of scientific procedure accounts, moreover, for the hopefulness of science; whereas, if we construe it as an (unavailing) pursuit of absolute truth, it is doomed to perpetual failure and disillusionment, as each successive truth is hailed as absolute, and then found to be erroneous. The history of science then becomes merely a passage from one error to another, and an argument for scepticism.

XII

Humanism, it is plain, has arrived at a very distinctive theory of truth. It has to pay a price for it, but the advantages are many. The price is the repudiation of 'absolute' truth as an ignis fatuus: the main advantages are the rescue of truth from this same morass haunted by will-o'-the-wisps, in which it has floundered so long, and the construction of an adequate theory of truth. It proceeds as follows. Noticing that in real life a risk of error always attends the search for truth, it conceives truth and falsity as, respectively, the positive and the negative values belonging to the normative science of logic. Noticing that every judgment, whether actually true or false, claims to be true when made (in good faith) by its maker, it assigns to this normative science, as its function, the evaluation of truth-claims. Noticing that the truth-claim of a judgment is quite formal and universal, it realizes that it cannot ever be the real point at issue, or the meaning of 'truth' in real life; nor consequently the real interest of logic. formal truth-claim, therefore, must always be evaluated critically. It is not to be admitted as really true, until it has been tested, and more or less validated. This testing is effected, in the first instance, by ideal experiments with alternatives in its maker's mind, before the judgment is announced; but mainly in the consequences it is found to entail after it has been published. Hence it will be seen that (effective) truth depends upon the consequences. This is true even for the maker of the judgment,

who retains the right to withdraw or amend his judgment in the light of its working. It is true also of judgments about the past, which are always generated by a present interest, and refer to tests of their truth which have not yet been made when they are propounded, and so are still in the future. It holds generally of all the special cases of 'truth,' not excepting mathematical truth, if only care is taken to provide real judgments and not mere verbal forms. And it is obvious that no definite amount of testing is prescribed or needed, just because no finality is aimed at. The amount required is determined in each case by the nature of the inquiry and the purpose of the inquirer: it has merely to be sufficient.

XIII

In addition to being simple and comprehensive, this theory of truth has other advantages. (1) As was shown in § XI, it keeps closely in touch with scientific procedure, and indeed regards itself as the true philosophic interpretation thereof.

- (2) It accounts for 'error' as well as for 'truth,' and puts their relations on an intelligible footing. An 'error' is conceived as the object of a value-judgment condemning a (relative) failure of cognitive effort, and as an acceptance of an inferior value when a superior value is available. Thus 'truth' and 'error' both become incidents in the progressive growth of knowledge, and are no longer opposed to each other in implacable enmity. An intelligent error may even be the next best thing to a truth, and a step towards its attainment. For the way to truth commonly lies through a continuous correction of errors, and the risk of error attends all truth-seeking. A 'truth' that tries to avoid this risk and to claim immunity from error is not real truth for man at all, but either a dangerous illusion or a mere piece of formalism.
- (3) It is the only theory of truth that has not hopelessly broken down. Of the others, (a) the 'Correspondence' theory, by trying to base truth on some sort of agreement with a reality

² Unfortunately I have not the space to show this here.

which transcends experience, cannot be tested and is inaccessible to knowledge, manifestly makes truth meaningless by definition. (b) The 'Intuitional' theory condemns itself by its incapacity to discriminate the intuitions which it accepts as intuitively (and absolutely) true from self-evident delusions. (c) The 'Coherence' theory, by reserving truth for the Absolute, renders it unattainable by man, and scorns to discriminate human truth from human error. It does well, perhaps, to confound logic with metaphysics, for logically it is as incoherent a theory as could well be devised. It professes to derive its belief in absolute truth from truths which it subsequently proves not to be absolute, its belief that coherence is the essence of truth from the coherence of human systems which the absolute system subsequently convicts of incoherence, and, from the existence of scientific systems which are partial and constructed by selections and rejections, it concludes to an all-inclusive system which ex officio cannot select or reject anything! 1

Now while it is not true that a theory can be proved absolutely by the failure of its competitors, we may accept a theory which makes intelligible so vitally important a subject as truth and error, at any rate until something better is devised.

XIV

I have endeavoured so far to show how the chief doctrines of Humanism are interrelated and develop out of each other, if we conceive Humanism as primarily a reform of logic which removes the unwarranted tabu put on the personal side of knowing. But there are many other starting points from which the same conclusions could have been reached almost as conveniently. For many ways may lead to the core of Humanism, even as there radiate from it many applications. One might, e.g., have studied its development historically, and traced its ancestry back to Protagoras's dictum that man is the measure of all things.² Or, again, one might have conceived it as an application

¹ Cf. articles on "Arguing in a Circle" in Aristotelian Soc. Proc., 1921-2, and on "An Idealist in Extremis" in Mind, April 1922.

^a Cf. Studies in Humanism, ch. ii, and Plato or Protagoras?, Oxford (Blackwell).

of the biological idea of survival-value to the realm of beliefs; or have extracted it from reflexion upon the logical significance of the theological virtue of faith in the realm of religion. Similarly, it is to a great extent optional what we regard as application and what as a matter of principle. In any case the applications of Humanism are too numerous, interesting, and important to be adequately treated in the limited space at my disposal. I shall have, therefore, to confine myself to a few consequential topics which experience shows are particularly liable to be misapprehended.

XV

In what sense does Humanism make usefulness the criterion of truth? And what are the implications of saying that all truth must be useful. Does it reduce truth to usefulness? Does it follow that anything useful forthwith ranks as true, and, again, that usefulness is solely and completely measured in pounds, shillings, and pence, or rather in dollars and cents?

The answer to these latter questions is—By no means ! and if many philosophers have written as though they believed that these implications did follow, it must have been because they had for the moment (or for the purpose!) become oblivious of the elementary rule of formal logic which prohibits the 'simple conversion' of 'A' propositions. From 'all truths are useful 'and 'work,' it does not follow that anything useful or anything that works (say a lie!) is true. And humanists have never committed this blunder or entertained this delusion. They have always been aware of the vogue and use of lies. errors, and fictions, and other sorts of truth-claim which no one in his senses would classify as properly 'truths.' Indeed, just because they distinguished so sharply between truth-claims and truths, they have found it necessary to map out the extensive region of truth-claim, to classify its denizens, and to assign to each of them their proper locality and status. The classification turns out far more complicated than intellectualist logic had supposed. There occur among truth-claims not only truths and errors, but the lie, the fiction, the make-believe, the joke, the methodological assumption, the methodological fiction, the postulate and the axiom. All these have to be analysed, and distinguished, and related to one another. All, moreover, have their uses, and among them is that of providing a cogent confutation of the absurd idea that whatever is useful is true.

It is hardly less important to understand the 'useful aright. Its proper meaning lies in the relation or 'category' of means-and-ends. Any means to any end is useful for that end. What is of use, therefore, is primarily a question of psychical fact. It depends on the end adopted and the means chosen. But as there is everywhere considerable social criticism and control of the individual's tastes and activities, neither his ends nor his means always meet with social approbation. So what he considers worth doing for the sake of a desirable end may be socially condemned as a useless, or even pernicious, pursuit. Hence, in discussing 'usefulness,' it is well to guard against this sort of ambiguity, and to make it clear, not only for what, but also by whom, this quality is claimed.

XVI

Questions much more difficult than those about the usefulness of truth arise concerning its 'working.' 'Working' is clearly a wide generic term, and it is legitimate to ask what precisely is covered by it. But for several reasons this question is difficult to answer. In the first place, it is easy enough to point to the ordinary scientific working, the relevance of which no one would deny. If a chemical theory leads to the observation of chemical facts which confirm it, it is readily inferred that, as the theory works, it is true. Here it is plain that the theory to be tested, and the working which tests it, are in pari materia. In other cases neither this congruity nor the logical cogency of the 'working' is so plain. Is, e.g., a moral theory proved true by its moral working and the salutary influence it has on the conduct of those who believe it? If so, Heaven and Hell might be easy to prove. In other cases the theory that works and the working that confirms it appear to belong more or less

definitely to different planes of reality. Is the existence of God proved by the spiritual comfort derived from the belief in God? Many would deny the relevance and validity of this sort of working, and though it can no longer be taken as certain that they are right, the value of this working is clearly disputable. Finally, we find in biology a sort of working, which, while wholly devoid of any rational appeal, yet exercises a far-reaching influence on our beliefs, and is capable of determining their adoption and the elimination of their contraries. We may call it survival-value. If the belief A has high survival-value, it is sure to commend itself to many, and to be adopted as true: if the belief B has negative survival-value, it tends to eliminate those who hold it, and so itself. Shall we say, then, that this natural selection among beliefs proves A to be true, and B to be false? It seems repugnant to allow so irrational a process to determine our beliefs: yet it is undeniably effective, and it is hard to set a limit to its efficacy.

We learn from these examples that the question what 'workings' shall be held relevant to the truth of a theory is not one to be settled off-hand. The truth is that the differences of opinion as to what workings are to be relevant to what truth-claims are correlated with some of the profoundest differences in human temperaments. Men take up different attitudes towards different workings because they themselves are temperamentally different. It is unreasonable therefore to expect a general theory of cognitive method to produce forthwith uniformity and agreement among men.

XVII

Among the questions which have been most debated in connexion with the humanist and pragmatist attitude in philosophy is undoubtedly that of the 'Will to believe.' But as it is also one in which the temperamental factor just noticed is conspicuous, it is not one likely to be settled just yet.

Up to a point its discussion is plain sailing. In itself the existence of a Will to believe is merely consequential on any

voluntarist interpretation of human nature. It is also easily verified as an empirical fact. So is the existence of a Will to disbelieve, where the consequences of belief would be distasteful. Only an utterly intellectualist psychology could refuse to recognize these tendencies as psychic facts in human nature. Nor can it well be denied that by the volitional attitudes we take up towards beliefs we prepare, or incapacitate, ourselves for the evidence of their truth. It may even have to be admitted, consequentially though reluctantly, that certain truths can only become visible to those who are willing to credit them in advance of any proof, by an act of faith. They verify themselves for one who will say, credo ut intelligam; but they do not compel assent.

Still the situation does not become really perplexing until we encounter cases where either of two incompatible views can claim, when adopted, that it is confirmed by subsequent experience. Yet such cases are not uncommon. For example, if a determinist interpretation be put upon the succession of events, no event will be found to refute this interpretation: yet the same set of events will equally conform to a libertarian explanation. A still clearer alternative of this kind is that between optimism and pessimism. Whichever of these one wills to believe, one can interpret all the facts into agreement with one's belief. In the one case the evil, in the other the good in life is declared to be 'only apparent.' That the real should be thus ambiguous, and obliging, and submissive to our interpretations, is surely a remarkable fact. It is, of course, conclusive testimony to the soundness of the humanist contention as to the decisive rôle of human activity: but it raises difficult metaphysical questions as to what this submissiveness involves.

XVIII

We are thus finally reminded that though nothing is more disastrous to science than a premature intrusion of metaphysics, yet in the end we cannot escape from metaphysical problems, however little we may believe in their solutions. I have through-

out this essay eschewed metaphysics, and been careful to describe Humanism as an attitude of the human spirit and as a method of solving the problems of human knowing, rather than as a metaphysical doctrine about reality as such: but I cannot altogether deny that it has metaphysical implications, and points to metaphysical consequences of considerable interest. In this essay they can, unfortunately, only be mentioned, and not explored.

In the first place it is implied in our whole account of the activity of knowing that it would be futile, if it met with no response from nature. If the real to be known were just hard unyielding fact that remained what it was, whatever we tried to do with it, not only our knowing, but all our activities would be paralysed. A certain plasticity of the real, whereby we are enabled to adapt it to our ends, is therefore a necessary postulate. How far this plasticity goes it is difficult to say, because only a few of the experiments conceivable have yet been tried; but we have a right to assume, for methodological reasons, that it is as complete as we desire. For if we assumed rigidity, we should only be debarring ourselves from discovering the possibilities of plasticity. Nor is our assumption so unreasonable in fact; for we saw in § XVII that in some respects the plasticity of the real actually goes further than is convenient.

Secondly, a certain pluralism is pretty definitely implied in Humanism. For, in protesting against the intellectualist abstractions from the human aspects of knowing, it recognizes each man as a real centre of activities, and ipso facto declares illusory the 'simplification' which treats all men as one and neglects their differences. Thus the empirical plurality of beings is not slurred over, but recognized as of right. This does not necessarily mean that the way to every sort of monism is barred; but it does mean that monism will have to be honestly arrived at, and not simply presumed, with a perfunctory parade of unsound arguments.

Lastly, the pluralism implicit in any refusal to abstract from personality naturally tends to *individualism*. But so do all metaphysics, rightly understood. Not only are they, his-

torically speaking, highly individual products of exceptional minds, but their individuality is manifestly derivable from the very function of metaphysics. The proper function of metaphysics is to effect a final synthesis of all the data, provided by all the sciences, and relevant to the final question about reality -What does it all mean? Admittedly, therefore, it must take into account all the data and undo the abstractions, rightly practised for their special purposes by all the other sciences. Conspicuous among these abstractions, however, is that from personality; it is generally practised by the sciences, and with success. But this only renders it more urgent that personality should come to its own in metaphysics, where it is no longer legitimate or possible to exclude it. Now this is precisely what we find to be the case: the personality of the metaphysician is found to supply the principle which evaluates the data of the sciences (as known to him), and arranges them in a system that brings the world nearer to his heart's desire. But the very reason that renders his metaphysic satisfactory to him, viz., the part played in it by his own personality, is bound to render it more or less unpalatable to others, who find that their idiosyncrasies have not been satisfied. Hence metaphysics seem doomed to remain personal guesses at ultimate reality, and to remain inferior in objective value to the sciences, which are essentially 'common' methods for dealing with phenomena. Nevertheless Humanism, though it cannot forget that it is itself a method, will regard the efforts of metaphysicians with tolerance and interest, and will not deny them at least æsthetic value, where their constructions show artistic merit.

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SOME IMPLICATIONS OF THEISM

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BIOGRAPHICAL

A PHILOSOPHER tries to detach himself as far as possible from purely personal influences and prejudices; he tries to follow the argument wherever it may lead. But he never succeeds in becoming impersonal. His experience is his own, and cannot be an experience common to all mankind; and even his intellectual judgment is affected by the varying sensitiveness of his mind to different kinds of considerations. In dealing with such a topic as Theism in a short essay one may do something to meet the claims of honesty by giving some account of the influences which may be supposed to have been most potent in determining the general habit of one's mind.

Home influences come first. Certainly such religious life as I have is rooted there. The influences of my home were not merely those of good and devout people. My father was deeply and even passionately convinced of the Personality of God, and of the Deity of Jesus Christ. But he was also a courageous thinker, who had reached this intensity of conviction by the intellectual as well as by other roads; and he had at one time been persecuted as a supposed heretic. From him I learnt to reverence the Bible; but from him I learnt, too, to use my own wits in reading it. More particularly I remember asking him, when I was about eleven years old, why Moses called himself "the meekest of men." and his replying, "I expect he spake unadvisedly with his pen." Under his guidance I embarked on philosophy; in the summer holidays, just before I was seventeen, he produced Kant's Critique of Pure Reason and Metaphysics of Ethics, and I got through them both, though my endless questions must have shattered the repose of his own holidays. To complete the story I must add that he himself confirmed me at the age of twelve, and from that time I have never ceased to be a regular communicant.

When I left school, it was to go to Balliol under Edward Caird, who lives in my memory as the supreme example of one who lived the intellectual life. But for him there was no breach between philosophy and religion; his thought led him to the

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divine; and the divine was for him revealed in Christ. He was most regular as a communicant in the College Chapel at eight o'clock on Sunday mornings.

After I took my degree, I had some years of doubt concerning specific points in the Christian tradition; but it is perhaps not surprising that I have never been able to feel any doubt about the reality of God as a Being with whom personal intercourse is possible and actual, or about the Godhead of Jesus Christ, through whom that intercourse takes place in my own experience. It is from such preconceptions that I approach the discussion of my theme.

SOME IMPLICATIONS OF THEISM

Two considerations prompt the writing of this essay. The first and most important concerns a permanent tendency of philosophy, a bad inheritance (as I believe) from the days of subsumptive logic; this is the tendency to be content with travelling the way of thought in one direction only. Plato did indeed recommend that those who travelled that way so far as to win a vision of the ultimate principle—the Idea of Good-should be required to come back and regulate human affairs in the light of the knowledge they had gained. Socrates is represented as confessing that he has never himself beheld that vision, and this confession plainly exempts him from the obligation to show how knowledge of the ultimate principle would affect our conceptions of ethics or politics. He points to the ideally right course, but advances a very good reason for not following it himself. His example has been more fruitful than his precept. Philosophers perpetually trace out a new route from the finite to the infinite, from the apparent to the real, from the world to God; but then they stop; they do not return to tell us how their vision of God leads them to regard the world. Some of them, no doubt, arrive at a goal which sheds no light upon the road by which it has been reached; but this is not always so. Even Mr. Bradley's Absolute, though itself dark with excess of light, has something to tell us about its own appearances. Certainly the God in whom the thought of Professor Pringle-Pattison finds its culmination and pivot illuminates some dark stretches of the world and of life; indeed, if the Professor would work out the implications of his own Theism he might clear our minds of various misconceptions concerning his real meaning. He is not one of those who so conceives his ultimate term that no return journey is possible; but if we make it, it is without his guidance.

The mention of this distinguished author suggests the other consideration prompting the composition of this essay. While contemporary thought is marked by a striking rejuvenescence of philosophical Realism, it is also characterized by a perpetually increasing emphasis on the concept of value. latter introduces great perplexity, especially for Realists. Value a quality of objects or only of states of consciousness? Are we to be Realists about facts and Idealists about values? If we are Idealists about values, is our Idealism subjective or objective? And if Value is a quality appertaining to states of consciousness on the occasion of certain experiences of real facts, is there any relation between the values and the facts which seem to cause them? These and many similar questions loudly demand an answer, which no extant philosophy. so far as my knowledge goes, is even attempting to supply Professor Miguel de Unamuno, in The Tragic Sense of Life, virtually gives the world of facts to reason and the world of values to faith, and passionately denies the possibility of any reconciliation between them. Others, who would repudiate this dualism, fail, in fact, to give any clear account of the relation of Fact to Value. I believe that no real advance in philosophy is possible until this matter is cleared up.

Professor Pringle-Pattison affords us a starting-point because in his Gifford lectures on The Idea of God he presents an admirably-balanced and close-knit argument, into which he has brought all the leading conceptions of recent philosophy. His book is the nearest approach to a Summa Philosophiæ that any contemporary has given us. Yet as I read it I am haunted by a sense of ambiguity. It is largely by means of the concept of value that the author reaches a conclusion demanding definitely theistic language. But value seems to be regarded as a quality of things; it is essentially adjectival. Consequently God, as here represented, hovers uncertainly between two functions—the Supreme Reality in whom all existences find the ground of their being, and the sum total

or perfection of adjectival values. As I read the argument, it is the latter conception that triumphs, and in the closing pages God appears as a quality of the world, a supremely valuable quality, no doubt, but one not indispensable to the world's existence. That there is ambiguity I cannot doubt; for when I read an essay by the same author in a volume called The Spirit I became convinced that I had rightly understood his meaning, while an article in Mind shortly afterwards persuaded me that he had actually meant something quite different.

This is not said from any desire to disparage an author to whom, in common with all English-speaking students of philosophy, I am under conspicuous obligations. The ambiguity referred to is important because it is the inevitable result of giving an important place to values, while the relation between Value and Fact is left indeterminate. It is precisely at this point that Theism affords help to the metaphysician who, in having accepted it as a conclusion, proceeds to make it the starting-point for further argument.

We spoke earlier of those whose ultimate principle throws no new light on the facts from which it is inferred; this is true of all materialist systems. In such a case the synthesis accomplished by thought is similar to the combination of mechanical forces, in that the result is exactly calculable from, and resolvable into, its constituents. But in most activities of reason each conclusion modifies the premises from which it is reached. The living thought of a science does not proceed by way of inference from unalterable data. You cannot, as many would urge, "build on the facts" because until the building is complete you do not know what they are. Accurate observation, no doubt, tells us part of the truth; but the most relevant part may elude the most accurate observer until his attention is guided by a theory based on observation, which may as yet be very incomplete. So no scientific process is merely inductive or merely deductive or merely a combination of the two. It is a gathering of data from experience; a provisional organization of those data in a system by some principle or theory which they suggest; a re-examination of the data, now regarded as constituents (particulars) of a system (a concrete universal); a reconstruction of the system in the light of fuller knowledge of the constituents; and so forth, until a completely coherent, comprehensive, and articulated system is reached. This system is accepted as true, not because it can be inferred from something else previously accepted as true, but merely because of its own nature as comprehensive, coherent and rationally articulated.

Now it is clear that in such a process there is a continuous modification of the initial data, which are the facts as first experienced, until the system is complete.

Our concern is not with any department of reality, such as the separate sciences handle, but with the whole; and it is clear that the process here can never reach finality. It is therefore reasonable to anticipate that philosophy must, to the end of human endeavour, follow such a course as that described above where every general conclusion modifies its own grounds, and this modification leads to a modification of the conclusion.

It is no part of my purpose to set forth the grounds which lead me personally to a theistic interpretation of the universe; space would forbid the full development of the argument, and an outline statement cannot present its real force. I must confine myself to two lines of reasoning which are specially germane to the main theme of this essay; but of course these do not give the whole of the intellectual case for Theism even as cogently as I might be able to state it if I were concerned with the grounds rather than the implications of Theism. The strength of the argument for Theism consists in the convergence of several lines of thought. Nor is thought the main basis of actual religion. I do not suppose that anyone ever became religious as a result of attending to the intellectual argument for Theism. Argument can only remove obstacles and open the way; the impulse to follow that way comes from elsewhere.

² Cf. my book Mens Creatrix and the last chapter of Mr. R. H. Thouless's admirable Introduction to the Psychology of Religion.

The first line of argument which I wish to outline is a modification of that which leads Aristotle to the declaration κινεί ώς ἐρώμενον. The chain of causes is not self-explanatory, though it may show how each fact must be what it is in the system of the whole. Such a conception as that of Bradley's Absolute is not self-explanatory, though it is offered as the ultimate explanation of everything. There is in fact only one principle which is self-explanatory; it is Purpose. We may ask why the Absolute is what it is at all, and there is no answer. Green regards as unanswerable "every form of the question why the world as a whole should be what it is." 2 But the desire to ask that question is itself the vitalizing impulse of philosophy. If there is a principle which is in fact accepted by the mind as self-explanatory, it is justifiable to adopt it provisionally and see what happens. Now there is one such principle—Purpose. When in tracing any causal nexus we reach the activity of a will fulfilling a Purpose with which we ourselves sympathize, we are in fact satisfied. Theism is the adoption of the hypothesis that the ultimate ground of the Universe is a Will fulfilling a Purpose which commends itself to our minds as good. It finds support in arguments from the sense of moral obligation and from religious experience; but in its purely logical essence it is the assumption that the ground of the Universe is a perfectly good Will.

The second line of argument leading to a theistic conclusion is the reflection that there is a perceptible scale of being, ranging from mere inorganic matter at one end, through organic matter, vegetable life, animal life, to personality as we know it in human life. As we rise in this scale we note a development of certain qualities. The piece of mere inorganic matter (if it exists) is insentient; we treat it as we like without considering its feelings, because we assume that it has none; it moves only as it is moved, supplying only inertia to its own reactions. Thus its individuality, though it exists (for it is "this" and not another) is negligible. When we rise to the vegetable stage, external surroundings have a relatively smaller

Metaphysics, vii, 1072, p. 3. Prolegomena to Ethics, p. 97.

influence on reactions and the nature of the individual more; but it is still assumed that there is no sentience, and we cut cabbages without feeling bound to consider their feelings. With animals we find indubitable sentience, and also the power of self-motion; along with sentience may go a sense of the difference between "mine" and "thine," and an expectation of reasonable treatment which almost amounts to a moral claim; this is most conspicuous in dogs, who also exhibit what can hardly be distinguished from a sense of duty. But all conscious interest seems to be limited to the present.

When we rise to the stage, where by accepted usage the term Person is first applied, we find that the influence of circumstance on conduct is still less, and the individual character is held definitely responsible for its reactions. Here sense of duty, and with it the sense of rights, is central; and personality shows itself most of all in the capacity to form (or accept) a Purpose and deliberately organize life and conduct for its fulfilment. For purposive Personality not only the present but also the past, and, still more, the future, is apprehended as important; it rises above time in the sense of surveying the course of Time, but the process of Time is essential to it. It is just this consideration which is fatal to those forms of Absolutism which relegate all succession to a position of ultimate unimportance. The Divine Will, wherein Theism finds the unifying principle of Reality, must, if it is reasonably called Will at all, achieve its purpose in the process of Time while itself surveying as from without or above the whole course of Time.

Parallel with the series of grades from mere Thing to Person is that from Matter to Spirit; but here the relationship is not only of higher and lower but of potential and actual. Mere matter does not reveal all that it can do and be until life directs it; life does not reveal all that it can do and be, until Mind directs it. Mere Mind (calculation) does not reveal all that it can do and be until Spirit (obligation or "ultimate value") directs it. Each higher grade requires for its existence those lower than itself; but the lower only realize the fulness

of their own being when the higher "inform" them. Spirit exists, it would appear, by means of Matter; but Matter exists as a means to Spirit.

Now if we put together the belief in the Ultimate Will and the belief in the sacramental nature of the Universe, we reach a general conception which immediately points to some elements in human experience as being more than others important to and significant of the supreme principle of Reality: and they are not the elements on which traditional philosophy has laid the greatest stress. Philosophy is essentially intellectual; and it has tended, in consequence, to give the greatest prominence to those fields of inquiry in which the most perfect intellectual satisfaction appears to be obtainable. Mathematics appears to be such, for here an absolute cogency and precision is not only possible but normal. seems unquestionable that the immense prominence given by Plato to Mathematics has its origin in this fact. But Mathematics purchases its precision and its cogency by an abstraction so thoroughgoing that it may fairly be said to leave reality behind and to deal only in notions. When the definition of a triangle has been given, there is no doubt about the equality of its internal angles to two right angles; but perhaps there is no such actual thing as a "triangle." Now the abstraction of Mathematics is not only from material reality, but from Beauty and Justice. In other words, Mathematics deals with an aspect of reality which is not by any means the most important to Reality as a whole, if Reality is the expression of a Divine Will.

Moreover, the scientific process, of which Mathematics is taken as the ideal type, ends always in knowledge only, whereas the scientific processes of Ethics and Æsthetics end not only in knowledge but also in action. In Æsthetics we study the laws governing the creation and appreciation of beauty, not only that we may understand intellectually what beauty is and how it is produced, but that we may ourselves creatively

In other words, what the Church believes to happen in a Sacrament is the true norm of the whole universe and of all things in it.

produce it and sympathetically appreciate it. In Ethics and Politics we study the laws of good living not only in order to understand the good life but in order to practise it. In other words, that science, of which mathematics is the type, endeavours to understand the world while leaving it what it was before; that science, of which Ethics is a type, seeks to understand the world as it is and as it might be, in order to change the former into the latter. Æsthetics, Ethics and Politics may be, and should be, every bit as "intellectual" as mathematics in their method of study; but their material is not reducible to what is itself intellectual in origin, as are the pure quantities studied by mathematics. The mathematical kind of science is indeed vitalized by will; but it is only the will to know, and this is independent of all social relationships, so that it lacks many of the elements that go to make up full Personality. If then the ultimate Principle is personal, we shall learn more about It (or Him) from the other group of sciences, both from their subject-matter and from their results, than from the mathematical group. God is more fully revealed by the Artist than by the Mathematician, because the Artist is in a fuller measure creative; he is more fully revealed by the statesman than by either, for the statesman is a creative artist whose material is persons and personal relationships. He is best of all conceived as a Father, who is an artist in living material of which he is himself the origin.

This is no contention that philosophy should somehow cease to be intellectual; if it does that, it perishes. What is contended is that the intellect, in its search for ultimate truth, is liable to be misled by the ease with which it accomplishes its own ideal in the mathematical sciences. As we have seen, that ease is due to the fact that these sciences are so highly abstract that they may be said to have turned their back upon Reality and to have dealt only in notions. In particular, though these sciences are actuated by a value—no less a value than Truth—they are not directly studying value at all; in their study, they abstract from value. Astronomy does not seek to settle "whether the earth is round or flat by showing

which it is better that it should be," as Plato professes to have hoped that Anaxagoras was going to do. But Æsthetics consists in directly studying a Value-Beauty; and Ethics consists in directly studying a Value—Good. It is true that the intellect of man never in this earthly life attains the same degree of cogency and precision in these studies as in mathematics; but this may be (as I am convinced it is) only because there is needed an apprehension infinite not only in range and delicacy but also in sympathy, and (perhaps) an infinite timespan, if all the relevant considerations are to be correlated. After all, æsthetics and ethics are themselves no less "intellectual" than mathematics; but in their subject-matter there is something which the discursive "intellect" cannot analyse or completely master, namely, Value. Therefore, in claiming that philosophy should give a pre-eminence to these sciences, while by no means neglecting the others, we are not preferring some other thing (intuitionism or what-not) to the rule of the intellect; we are only asking the intellect to be true to its own ideal of comprehensiveness as well as to that of coherence. and give the priority to that which is more comprehensive over that which is less.

Recent philosophy shows a growing tendency towards this point of view. It is enough to mention such different philosophers as Bosanquet, Pringle-Pattison and Croce. But when we look at these philosophers in their treatment of values, we find that for the most part they do not study the actual values, but rather the concept of values. We owe a great debt to Mr. Bosanquet for his demonstration of the identity of logical structure in Truth, Beauty and Goodness. But Beauty is in fact rather abstractly handled, and Goodness very markedly so. There is a great contrast at this point between his inquiries and (for example) Aristotle's study of actual moral judgments and actual political forms. No doubt it is difficult for the modern philosopher to study the concrete facts without giving to this study an inordinate amount of space. If it is to be done, it must be by the deliberate selection of one moral tradition; but that it can be done in this way has

been shown by Solovyof in his treatise on *The Justification of the Good*. It is the mathematical tendency to deal with notions (which, of course, always express some reality) which leads to the simplifying of all the rich bewildering variety of human goods into a concept of goodness which is not the concrete universal of all these but their almost empty form, and makes of this the object of philosophic thought. Yet if the Ultimate Principle of Reality is a Personal God, it is the rich variety and not the simple form to which philosophic importance primarily belongs.

At this point the age-long tendency of philosophy to attend chiefly to what it most easily masters, namely, the notional and static, is in Europe reinforced by an accidental influence due to historic causes. When Christianity first became the predominant influence in the European mind, it seemed to provide (as indeed I believe it does provide) a unifying principle qualified to be the pivot of a truly complete philosophy. That philosophy was elaborated in the terms of current thought by the scholastics. But just because the system thus elaborated was so complete, it became a tyranny. New knowledge, if it did not fit into the scholastic scheme, was repudiated. Baser motives assisted the growth of obscurantism; the intellectual greatness of the Schoolmen became a dead-weight on the intellectual life of their successors, and a conservatism far from disinterested was willing to use a great intellectual achievement to check the social or ecclesiastical inconvenience of further intellectual inquiry. Dogma, which had been the formulation of a corporate intellectual process, was allowed to appear as an enemy of free intellectual inquiry; and there arose the now familiar antipathy of the active or alert intellect to all dogmatic propositions and to the Church that accepted and maintained them. The Church became unsympathetic to free philosophy in the later Middle Ages; and philosophy has retaliated by taking it for granted that the Church is rightly to be ignored. It is not only the Church that suffers.

Is it not a phenomenon which will astonish our descendants when they study our philosophy and find that most philoso-

phers in Europe in the eighteenth and nineteenth centuries, though they deal with ethics and speak freely of religious experience, pay scarcely any attention to a great stream of religious life flowing strongly in their own time and admittedly influencing the institutions of civilization as much as any other force that can be named? We have referred to the contrast between the rather abstract ethical principles which form the material for ethical study in most English philosophers, even in T. H. Green, with the richly concrete data handled by Solovyof, who unashamedly bases himself on the moral instincts and judgments of Christendom. But the contrast is even more glaring when we pass to the field of "religious experience."

There are few phrases that have been used so freely or so loosely as this. It has two distinct meanings. It may be used, as it is by William James, to denote specific moments in which a man passes through what he takes to be direct awareness of God or of intercourse with him. The fact that James isolated these "experiences" deprived his treatment of them of half the value that it might have had. The phrase "religious experience" may also mean the constant experience of life and the world that comes to a religious man-an experience which is pervaded and permeated by religion. Now it is this, and not the former, to which any religious person attaches importance. Trances, visions, ecstasies—these may come or not; but they are no indispensable part of "religious experience" as a religious man understands it, and they derive their value precisely from the fact that they are not isolated, but are focal or concentrated examples of what is all-pervasive. The religious man not only prays religiously or does his duty religiously; he eats and drinks religiously, he plays religiously, he sins religiously. The last is usually the most conspicuous to his own mind. If an irreligious man ignores the Moral Law, he will afterwards feel remorse or not according as he is or is not conscientious. But the religious man who ignores the Moral Law is conscious of rebellion against a king, and (if he be a Christian) of the betrayal of a friend. There is in Christendom a mighty volume of such experience; it finds its formulation and representative expression in the creeds and worship of the Christian Church. Yet philosophers hardly ever attend to this. So strong is the prejudice that the Church should be ignored, that they hardly attend to it even to explain the basis of its supposedly fallacious power over men. The antipathy of philosophy to the Church and its tradition combines with the prejudice in favour of using only the processes of the intellect as data for the intellect in its search for ultimate truth, to lead to an exclusive attention to one kind of religious experience; at any rate it is the fact, and a very odd fact, that, broadly speaking, philosophers attend only to the religious experience of the mystics.

It may indeed be urged that one great modern philosophy—Hegelianism—offers itself as a philosophy of Christianity. But it remains rather detached from the actual experience of the ordinary Christian. It tends to take the theology of Christianity for the whole of it, and religion is always more than theology, as art is more than æsthetics. The Hegelian philosophy of religion pays scarcely any attention to the psychology of religion, which ought to supply a large part of the data; and it is with the psychological aspects that the Church in practice is mainly occupied. So even in this professedly Christian philosophy there is still a strange aloofness from the actual Christian Church.

It may be true that the mystical experience is the intensest of all forms of religious experience; it may be even the most purely religious, in the sense that it is more than any other detached from non-religious interests.¹ But for this very reason it is the least representative, and even (perhaps) the least important. Certainly the great mystical saints attached singularly little importance to those "experiences" which most thrill some modern psychologists. S. Paul had wonderful "experiences"; but he declared that the only test of their divine character was to be found in their power or impotence to increase "charity." So S. John said, with excellent terse-

Religion, like Plato's Justice, claims all life for its sphere, and if some special department for its exercise is sought it turns out to have none except in individual feelings: ἐν ἀχρησεία χρήσιμος.

ness: "If a man say, I love God, and hateth his brother, he is a liar." S. Theresa, S. Thomas à Kempis, S. Catharine of Genoa bear the same witness. And if God is indeed the Creator of all men, having a purpose for them all, the "religious experience" of the average religious person will be more important in His sight, just because it affects so many of His children, than the achievements of devotional athletes, though these must be precious, too. Moreover, if God made all the world, an "experience" which consists in a "flight of the alone to the Alone" will be less rich in religious apprehension than the "experience" of dependence and devotion which is shared with countless others, and expresses itself through the symbolic use of common material things (like bread and wine), and is always conscious of obligation to fulfil in conduct the purpose of the God to whom adoration is given. Philosophers have tended to take the mystical experience as typical of religious experience because in it we find religion pure and simple. But if Theism is true, then "religion pure and simple" is a form of religion defective in itself and not specially pleasing to God.

We plead, then, that any philosopher who arrives at Theism as a general conclusion should come back to study the world again in the light of that conclusion. If the final explanation of the world is the Will of a Creator-a Being who fulfils that hope of a complete Personality which grows in the mind as it ascends the scale from dead matter to human life—we can see at once what must be to Him (and therefore in truth) some of the most important values. And we may reasonably expect to find the clue to many problems in the average sincere religious experience of men. If there be any specific act of divine self-revelation, then we shall expect to find this clue most of all in the average sincere religious experience of those who have received that revelation. But in any case our attention will be directed to the concrete realization of values, not to the bare idea of value: to great moral traditions and great streams of religious experience, rather than to the bare notion of morality or the bare notion of religion. All knowledge will still be our data; but we shall expect to learn more about Reality from ethics than from mathematics, and an effort to establish a League of Nations will seem to us, even metaphysically, more important than Einstein's suggested improvements on Newton.

Clearly it is not possible in this essay to follow all the lines of argument which are thus opened up. But we would call attention to the fact, which confirms that hope which we have spoken of as arising in the mind as it passes in thought from Thing to Person. For there is no doubt that normal religious experience takes the form of a personal relationship. Any weight that we attach to the evidence of such experience tells in favour of a belief that God is "personal." To say He is a Person is perilous, because it suggests the limitations of personality as we know it in ourselves. The Christian tradition, in employing the word Person as descriptive of God, has steadily said that the One God is Three Persons. But at least He must be such as to be one term in a personal relationship, if normal religious experience gives any clue. And if the experience formed under the influence of the Christian tradition is to be trusted, His personality must be such as to support three relationships, which could not all be supported by one "person" conceived on the analogy of human personality.

Theism, then, being reached as a general conclusion on general philosophic grounds, invests with special importance or significance a department of human experience, which is found to corroborate that belief in the personal nature of the Ultimate Principle, which is the essence of Theism. Of course the argument is circular; but it is not vicious. On the contrary, it is an illustration in one department of that method which we found reason to regard as the most scientific.

Further, our whole conception of the physical world must be affected by our acceptance of theism. If the world is rooted in the activity of the divine Will, we have to ask not only what is the method, but also what is the object of Will? And the answer, it would seem, is Value. The direct object of Creation, then, is Value. Certainly value never exists in isolation; it

exists only in things or persons which have value. But it makes a great difference whether we think of objects as existing in their own right and incidentally possessing value, or think of value as the substantive entity which assumes various concrete forms for its own actualization. If the latter view be adopted we shall not contrast ontological judgments with value judgments, and give the priority to one or the other, for on this hypothesis value judgments are the only truly ontological judgments.

It is this inference from Theism which seems to carry the most momentous consequences for philosophy. The development of them would require a volume. But a philosophic system which based itself on the conviction that value (or Good) is itself the sole Reality would have solved from the outset some of the characteristic perplexities of much contemporary thought, and would have the additional advantage of starting from a point (Value) where subjective and objective are plainly blended, for if Value is the causa essendi of the objects in which it becomes actual, it assuredly exists for the appreciating mind.

Theism moreover supplies the corrective needed to deliver a Value-philosophy from the chaos of humanistic Pragmatism. For while every mind must find Value in what answers its own aspirations, yet these values are only provisional or apparent. They represent by analogy the true values, which are the real substance of the world and all things in it; these are the values which answer to the joy of God as He looks upon His work and knows that it is good.

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I have attempted the elaboration of some of the consequences in Christus Veritas.

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To

F. H. BRADLEY, O.M.

TO WHOM BRITISH PHILOSOPHY OWED
THE IMPULSE THAT GAVE IT NEW
LIFE IN OUR TIME

EDITOR'S PREFACE TO THE SECOND SERIES

For the general idea of this book as a statement by representative writers of leading philosophical theories current at the present time in Great Britain the reader is referred to the Preface to the First Series published a year ago. With regard to the writers included in it I merely wish to repeat that the division into a First and Second Series has nothing to do with their age or standing, but is solely due to the different times at which their contributions became available for publication. Even now there are conspicuous omissions in a list that claims to be representative of living British thinkers. It is hoped that it may still be possible to supply at least some of these in a further series, or in a subsequent edition of the present ones. The order here, as in the former volume, is alphabetical, with the single exception of Professor James Ward's article, which, with the approval of other contributors, has been placed first, as a tribute of respect to the writer whose death since he wrote it has deprived this country of its oldest and most distinguished psychologist. As in the case of Bosanquet's article in the First Series, Ward's may be regarded as his last will and testament to his contemporaries on the subject of general philosophy, to which the latter years of his life were chiefly devoted. It was the general wish of the writers in the former series that the book should be dedicated to F. H. Bradley, and it was only Bradley's own modesty that prevented this being done. 'Writers in the present series have felt that his death in the interval has altered the situation, and that they could not better express their sense of what British Philosophy owes to him than by inscribing his name on the fly leaf.

I desire to use the space which it may be permissible to occupy

with a second Preface to deal shortly with some of the chief criticisms that have been made upon the earlier volume as a specimen of what may be expected from such an enterprise as a whole. I shall confine myself to two which are closely related to each other.

The first rises out of what was said in the former Preface of the relation between a writer's personality and his philosophical opinions. The second refers to the closely allied point of the multitude of conflicting views that are represented in these volumes, and to the proof it seems to afford of the absence of any real progress or assured results in philosophical speculation.

In the Preface to the First Series I referred to Fichte's saying that "the kind of philosophy that a man chooses depends on the kind of man he is," and added that in this respect philosophies were comparable rather to poetry than to science. Though these statements were expressly guarded against misunderstanding in the sentences that followed, they have been taken by critics as giving countenance to the view, associated with Positivism in all its forms, that speculative philosophy represents an effort of the creative imagination calculated to give satisfaction to the emotions rather than, as William James calls it, a particularly obstinate effort to think clearly for the satisfaction of the reason. In view of this misunderstanding I wish to repudiate, on the part both of myself and I think I may say the whole of the contributors, the view that individual temperament and circumstances of education and environment of thinkers constitute the determining factors in the ultimate shape which their opinions take in philosophy any more than in other departments of investigation. There is, indeed, one great difference between philosophy and the special sciences. While these deal with some one particular department of experience, philosophy is condemned to concern itself with all departments and with experience as a whole. It is, therefore, vital for anything approaching to success in it that the student should be endowed by nature with a certain sensitiveness to all the rays that come to him out of the heart of the real world, and

further that circumstances should have favoured the development in him of this sensitivity. We are familiar in particular departments, whether of science or art, religion or politics, with thinkers and writers to whom apparently truth is unable to enter save by a single gate, or who are open to the touch of reality only at a limited number of points. We know, moreover, from such frank confessions as that of Darwin, how exclusive occupation with one or another department of experience may dull or destroy the specialist's capacity of entering sympathetically into others, without injury, perhaps even with advantage, to his work of investigation or interpretation in his own chosen field. But in philosophy it is safe to say that this is In some sense, within the limits of human finitude, the student here must be "the spectator of all time and all Any spiritual colour-blindness, any gap or oneexistence." sidedness in his actual experience, is inevitably reflected in a distortion of the view he is likely to take of the reality that is revealed through it. If therefore by personality we mean the comparative open- or close-mindedness of a writer in philosophy, it is true enough to say quot personæ, tot sententiæ. admit this difference is one thing, to maintain either that the favourable conditions are never present or that, when they happen to fail, it may not be possible for individuals to allow for and so rise above their limitations, is quite another. The most fundamental fact in the life of the mind, which even the most sceptical have to admit in one form or another, is the instinctiveness and immediacy with which it transcends all subjective limitations. Common sense and science alike are founded on the instinctive assumption not only that the Cosmos has created us after its own image, but that it has created us with the power to know it as it is. Sense knowledge may have to undergo a certain rectification, the results of science may have to be stated with a certain provisionalness; but that the human mind is incapable in the last resort of "pure thought," in the sense of submission to the truth as it is in things, is a view to which, it is safe to say, it could only reconcile itself at the price of self-extinction.

There is no ground in philosophy any more than in sense perception or scientific investigation to believe that the personal equation must vitiate any claim to objectivity in knowledge. Like science, philosophy holds the mirror up to Nature, and equally with science has the right to the assumption that the mirrored image can be a true reflection of it. It is for this reason that (as it has been finely put by a writer, unfortunately not yet represented in these volumes) "some of us who believe philosophy to be science, an attempt at truth, are troubled when we hear philosophy described as merely a work of art, the lyrical outpouring of the mind of a philosopher; beautiful, perhaps, but not knowledge; only comparable to a statue or picture or poem; making no doubt the impersonal appeal to human feelings, but not itself a reasoned account of the simplest If, as I think is true, philosophy may be said to contain more of a man's soul than a scientific theory, it does so because it is an attempt to bring a wider range of experience into harmony with itself, and so to contain more of the world as it really is.

2. The second line of criticism is more difficult to deal with for reasons which I have mentioned in the Preface to the First Of the general trend of philosophy in our own time each writer would probably give a different account and most would experience a certain satisfaction in discovering that it was in the direction of the establishment of his own particular opinions. There are not many who, with the candour of the late James Fitzjames Stephen, would say that they would be sorry to think that the mass of mankind were doomed to hold the views at For this reason I feel which they themselves had arrived. now, as I felt in writing the former Preface, that I have no right to prejudice the reader by my own particular interpretation of the trend of contemporary philosophy, or to presume here to pass what might appear to be judgment on the contributions of individual philosophers. Nevertheless, I believe that I am expressing the mind of the great majority of the writers in these

Professor S. Alexander, "The Artistry of Truth," in Hibbert Journal, January 1925.

volumes in rejecting the view that there are no common tendencies traceable in the thought of our time and country.

Of the existence of deeply marked divisions founded on difference of approach and on the results arrived at there is, of course, no question. There is the difference denoted by the terms Idealism and Realism, however unsatisfactory these may be to denote it. On the one hand we have thinkers who approach philosophy from the side of the great comprehensive faiths of mankind, as embodied in its art and poetry, its heroisms and its religions, and who have sought (and think they have succeeded in finding), if not the letter in which these faiths have been encased, yet sufficient assurance of their validity to be able to maintain them in face of the apparent brutality and uncompromisingness of fact. On the other hand there are those who approach philosophical problems from the side of the facts, pledged only to the simplicity of the truth as it is revealed in them. William James has characterized the distinction as that between the tender- and the tough-minded, the white-robed and the dark. In reality it is the difference between those who start from the concrete experience of the ordinary man with its comprehensive interests and seek by a process of criticism the grounds and the extent of its validity and those who, imbued with the analytic spirit of modern science and of the economies that are enjoined by it, seek to plough their way through the jungle of fact to what of light-or of darkness-may be found at the other side.

There are further divisions in these two main streams. In Idealism there is the distinction between those who take their start from the world that is experienced as containing something of which the process of experiencing is a revelation—something-in-itself, if no longer conceived of Kant-wise as an impenetrable Jenseits, yet as something which, while revealing itself through appearances, carries us beyond them. And there are those who would find in the temporal processes of the mind's own thinking, willing, and feeling the clue to what men mean when they speak of truth and reality in the sphere of knowledge, beauty and good in that of feeling and action. The first are drawn to lay emphasis

on the element of permanence or non-temporal unity, the second on the plurality with which a world whose essence is change is necessarily infected.

There is a similar and even more confusing diversity among professed Realists. There are those who take their start from the theory of knowledge, and are chiefly concerned in maintaining the existence of things independent of knowledge whether sentient or conceptual as against all forms of subjectivism. And there are those who, starting from the world as it presents itself to science, occupy themselves rather with analysis and description of its contents. Of the former Professor Laird and Professor Dawes Hicks may be taken as examples, though they would deny that knowledge theory is the sole or even the most important department of philosophy. Of the second, Mr. Bertrand Russell and Professor Lloyd Morgan are representative in the first, Professor J. Arthur Thomson in the present series. But the first of these last mentioned writers differs toto calo from the others in his conception of the kind of world that is revealed to analysis. In his Logical Atomism the whole emphasis is upon its plurality: "the original manifold of events." Matter and mind are defined in terms of the "compresence" of "events." In the Philosophy of Evolution of the others the emphasis is upon integration and system reaching ever higher levels as we pass from matter to life and from life to mind, and only explicable as the manifestation of what the former of them calls "one immanent Causality."

All these separate lines of thought are clearly traceable in the essays in these volumes. Yet it would be strange if, in the ferment of thought which they represent, there were no lines of approximation, no tendency for extremes to meet, no precipitate that could be said to bear the character of an assured result or be a sure mark of progress. As examples of what seems to me to be actually taking place, I shall venture to mention some definite points on which, if there is no general agreement of interpretation, there is among thinkers a far more sympathetic understanding than ever before of the problems to be solved, and a far deeper conviction of the necessity of reaching the

EDITOR'S PREFACE TO SECOND SERIES

"synopsis" in which, according to Plato, true philosophy consists.

- (i) No controversy has gone deeper during the last century and a half than that between Realism and Subjective Idealism: the doctrine that we have immediate knowledge of a non-mental world and the theory that we know nothing immediately but our own subjective states. Yet the controversy as so stated may be said to be a thing of the past. To quote the writer of the first article in the present series: "The duality of experience as involving both a subject and an object, an experiens and an expertum, is no longer questioned by any competent thinker." 1 How we are to interpret the ultimate nature of the reality which is known or with what right we take the physical objects of sense-perception as the type of the real world—the question of the relation between what has been called perceptual and logical objectivity—may still be subject of keen controversy. But that knowledge is in some sense an immediate revelation of a reality other than that of the knowing activity itself, and that this activity is not the creator of its own world, may be said to be the starting-point of all recent British philosophy. The ground on which such realism walks may still be somewhat boggy owing to the survival of subjectivist terminology, as in the ambiguous use of such terms as "sensation"; theories of perception may be a perfect tangle of perplexity; what is clear is the general admission of the essential polarity of experience. Even pragmatists, who are most closely identified with the "creationism" that finds favour elsewhere,2 acknowledge in some sense the mind's allegiance to what James calls the "matrix of experiential circumstances," and are prompt to disown subjectivism in the older sense.
 - (ii) Equally out of date may be said to be the old controversy between materialism and spiritualism. Philosophers are far from agreed as to the status of spirit in the Universe. On the other hand there has grown up in the present generation, owing chiefly to the great developments in biological and psycho-

¹ Hibbert Journal, October 1924, p. 176.

^{*} E. G. in Creative Intelligence, New York, 1917.

logical science and the recognition of the unique parts that life and consciousness play in evolution, a profound distrust of any attempt to explain phenomena in terms of "matter" and mechanical action alone. What might be called the hierarchical or nodal view of the world as at once continuous and at certain points in the order of complexity self-transcendent, in the sense of permitting the emergence of entirely new qualities not resolvable into anything that went before, may be said to be the common property of Realism and Idealism in all their forms. Whatever may be true of water in the physical world, the water of life seems to be capable of rising above its own level. There are still doubtless those who hope to be able to produce life from the lifeless, or, again, who would seek to explain the phenomena of consciousness in terms of subconscious physical But among British philosophers, at any rate, movements. so far as they concern themselves with this problem, it is generally recognized that chemico-mechanics furnish a method of approaching vital phenomena rather than the basis of a satisfactory theory as to their nature. Even although life could be produced from the apparently lifeless, the conscious from the unconscious, it would still remain true that at the higher level we have something entirely new. What would be proved. if anything, would be that matter and life were more than we took them to be. If Shakespeare's brain wrote Hamlet, it was more than a brain. There has thus resulted a growing recognition that the world is a house of many mansions, each with its own key, and that the attempt to find in physics a skeleton-key that will open all locks is bound to fail. There is indeed nothing more characteristic of contemporary British philosophy than the common sense that leads it to refuse a place to extreme behaviouristic theories founded ultimately on the denial of the variety in unity that pervades Nature. I

The feature here referred to as characteristic of British thought in general philosophy has been noticed as characteristic of it also in special departments. The theory, e.g., of the existence of a criminal type, which has graced (or disgraced) criminology elsewhere, is conspicuously absent in England. With modifications, the same may be said of extremist theories of social reform. This has not prevented other countries looking

(iii) Going along with this conception of a hierarchical order of different levels of being in the world is the growing recognition of the necessity to assume the operation of an underlying nisus or urge in Nature not only to maintain itself at any particular level which it may have reached ("to persevere in its own essence"), but to advance to ever higher levels. We have learned to associate this doctrine with the philosophy of Bergson, but it finds independent support in recent biological research. Vitalism in the older sense of belief in a soul infused from without as an entity or entelechy independent of the body is generally rejected, but the facts of organic life, as expounded by such writers as J. S. Haldane, J. Arthur Thomson, Julian Huxley, have forced into evidence the presence of an integrating, selftranscending principle not resolvable into any mere chemically acting aggregation of biophores. The "Rubicon" between mechanism and life thus crossed, there is less reason to hesitate over the line which separates life from spirit. As on the basis prepared for it by chemico-physical action there "emerges" in life something not resolvable into it, yet triumphing in and through it, 1 so out of the natural instincts, owing to the presence of mind, there arise interests and relationships transcending their origin both in content and in their power to subordinate it to other ends.

It is only a generalization from all this to see in evolution in general, as thinkers belonging to all schools now do, the operation of a creative principle precipitating ever new and higher forms of life on the stage prepared for it by the lower. Whether philosophers as yet sufficiently realize what is involved in the conception of a nisus in Nature towards forms of reality, which include while they go beyond what has gone before, is another question. I have tried elsewhere. 2 to show that a more general recognition of the change in our conception of reality,

to Britain for a lead in the reform of prisons or of the social system in general. The diffusion of common sense in philosophy in all its departments may well be taken as both a sign and a cause of progress.

1 A phrase of R. B. Perry's in *Present Philosophical Tendencies*, p. 344.

A phrase of R. B. Perry's in *Present Philosophical Tendencies*, p. 344. Philosophical Essays presented to John Watson (Queen's University, Kingston, Canada). "Emergent Realism," pp. 336 foll.

which results from assigning to the Universe an immanent purpose, in other words an eldos or ideal form, to which it is in some sense pledged (for it is this that the doctrine of the nisus must mean if it means anything), would go far to reconcile the differences between Realism and Idealism as represented by leading writers of to-day.

(iv) Arising out of this there is a further feature of contemporary British philosophy, on which, if there cannot be said to be general agreement, there is a remarkable approximation among thinkers otherwise at the opposite poles of the philosophical firmament. Corresponding to the levelling view for which the mechanical philosophy stood, there was until recently a general tendency to express the object to which Nature strove, if not, with Lucretius, any longer in terms of pleasure, yet in terms of social survival. To be valuable meant to be of aid in securing the permanence of social types. Here also by a general widening of outlook philosophers have come to recognize that as there may be trans-individual so there may be trans-social values. Whatever the origin of the sense of duty, devotion to truth, love of beauty, these objects, once apprehended, mean not only the opening up of new sources of enjoyment but a quickening of insight into the nature of the world, of which they are an effluence, and thus acquire a status and value of their own, by which our conceptions of reality are extended and enriched. Philosophers are indeed far from agreement in their interpretation of the meaning and criteria of beauty, truth, and goodness. before problems can be solved it is necessary to have them stated in all their depth and range, and it is this widening of men's ideas as to the content of experience and the difference that is made in it by the advent of mind and spirit that is one of the most hopeful signs of British philosophy as reflected in these volumes.

Under these circumstances it is not at all surprising that this widening has taken the form of a revival of Platonism, the great meeting-point of Realist and Idealist. No philosopher was ever more insistent than Plato on the reality of a world independent of the processes by which we come to know it, or more convinced that knowledge was essentially a revelation. Yet none more

clearly recognized the distinction between the temporal and spatial appearance or show of things, and the permanent non-spatial reality that is revealed through it. To Plato the type of the reality, which was independent of mind, was not the sense-datum of ordinary perceptual experience, nor yet the Pythagorean numbers and shapes of which he held the matter of the world of sense to be built up, but the unsensed world of essences of which beauty and goodness were the highest expression. It was these in the end that claimed the soul's allegiance as at once beyond it, soliciting it as from another world, and yet its own surest possession here and now.

As a form of Mysticism nothing would seem more alien to the common sense I have already claimed as a feature of modern British philosophy than Platonism so interpreted. In other countries, notably in America, the newer schools both of Realism and Idealism have little in common with it. In this country, where the Platonic tradition has never been wholly lost, there is a recognizable difference. Common sense itself has never been more sensible than in the recognition of the greatness and ineffableness of the deeper phases of human experience. The poetry of last century, with Coleridge, Shelley, and Wordsworth at its fountain head, has been Platonic to the core. What inspiration the idealist movement in the sixties and seventies did not draw from these and from the mysticism of Carlyle it drew from the revived study in Oxford of the Platonic Dialogues. The new forms of Realism and Empiricism of the eighties and nineties were indeed largely reactions against the literary bias of this movement in the direction of scientific analysis. But these too had another side. The enemy against which the pluralism that was common to both was directed was not literary taint, but the leaning to an abstract monism which seemed to threaten the whole fabric of scientific truth. In their best representatives. both here and in America, Henry Sidgwick, William James, and later Mr. Bertrand Russell, ample room was left for the reality of the supersensible. As it has developed in its younger

G. P. Adams's *Idealism and the Modern Age* is an energetic reassertion as against them of the "Platonic Thesis."

representatives, Realism in particular, while starting from the "atomism" of the last-mentioned writer, has found itself constrained to extend its idea of reality from the simple substances to which analysis leads so as to include the substance that is revealed through but not by sense, and, like the Platonic $\epsilon i \delta \eta$, constitutes the stable element in space-time events.

There is, indeed, no better illustration of the widening of outlook, of which I am speaking, in contemporary British Philosophy than the current application of the term "experience" to other fields than those covered by sense-perception-carrying with it as it does the implication of the existence of a real object essen-This holds not only of moral and æsthetic tially sui generis. but also of "religious experience." In the latter part of the nineteenth century it would not be too much to say that, with the exception of a few idealist writers, philosophy was divided between the attempt to buttress orthodox theism, mainly in the interest of practice, against the attacks of materialism and the denial of the reality of anything corresponding to popular conceptions of God. The God-consciousness was either something brought in from without, as in the soi-disant "revealed" religions, or something without real significance for human life, as in so-called "natural" religion. Writing of the whole attitude of philosophy to this subject in 1893, Bradley could say, "We have but little notion in England of freedom . . . we fail through timidity and through a want of simpleness and sincerity. a man should treat of God and religion in order merely to understand them and apart from the influence of some other consideration and inducement is to many of us in part unintelligible and in part also shocking. And hence English thought on these subjects, where it has not studied in a foreign school, is theoretically worthless. "2

Bradley may have underestimated the difficulty of the "disinterested" study of theology, but it is undeniable that since these words were written there has sprung up a wholly new appreciation of the independent and permanent significance

¹ See e.g. the paper of Mr. Joad in this volume.

² Appearance and Reality, p. 450.

The conclusion to which all these tendencies as reflected in the writers here represented, when impartially considered, point, is not, I venture to think, the despair of progress in speculative thought, but rather the extreme hopefulness of an enterprise that marshals such a company from all the ends of the intellectual world for the common purpose of exploring the frontier provinces of human experience, and perchance bringing back authentic tidings of what lies beyond.

Philosophy."

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A THEISTIC MONADISM

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PRINCIPAL PUBLICATIONS

- Naturalism and Agnosticism; 1899. Fourth Edition, 1915. A. & C. Black, Ltd.
- The Realm of Ends, or Pluralism and Theism; 1911. Third Edition, 1920. Cambridge University Press.
- Psychological Principles; 1918. Second Edition, 1920. Cambridge University Press.
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A THEISTIC MONADISM

HEGEL described philosophy as 'die denkende Betrachtung der Dinge'; his contemporary, Herbart, described it as 'die Bearbeitung der Begriffe.' These descriptions, in spite of their homeliness, are among the best. But "the world is so full of a number of things" that the philosopher nowadays would be hopelessly bewildered were it not for what the sciences have accomplished in systematizing the 'things' within their several departments. The philosopher's problem is to understand the world as a whole—that is what his thinking is about. museums and laboratories of science together fail, however, to provide das geistige Band which he is seeking. The sciences classify the contents (the what), and exhibit the processes (the how) of things—in detail; but they never grasp either their unity or the purpose that runs through the whole (the why). Nay, they do not completely understand themselves: every science involves concepts and principles taken for granted without criticism, Hence the need for their Bearbeitung: in other words, a theory of knowledge (epistemology) is the preliminary requisite of philosophy in the stricter sense, i.e. as die denkende Betrachtung concerning the what (ontology), and the why (teleology) of the world as one.

These three main inquiries are obviously closely connected: the solution of the first—a tentative one, it, may well be—will go far to determine the treatment of the other two, and the solution of the last in like manner will affect and be affected by the solution of the second. The earliest attempts to philosophize began and ended with that; but they were too crude and dogmatic to have any lasting value, and serve only to mark the attainment of a stage of thought which was outgrowing the childishness

of myths. There is, however, but little historical connection between those early and one-sided philosophies: they originated for the most part independently, and were generally mere episodes in the progress of thought. It was otherwise when the threefold inquiry just described was taken up by individual philosophers. Some historical continuity is then apparent; though in the first instance such philosophies were designated merely by the names of their authors, as, for example, Platonism, Aristotelianism, Epicureanism, etc. So regarded, these were notoriously not only conflicting in their various solutions, but cumbersome from their mere number. Happily historians of philosophy have classified these systems according to the primary divisions just mentioned: (1) in respect of epistemology as empirical, rational, sceptical; (2) in respect of ontology, as materialistic, spiritualistic, and again as pluralistic, singularistic; (3) in respect of teleology, as tychistic, melioristic, theistic; and we may add, (4) in respect of such amalgamations compatible with any of them as they may turn out to imply Every new philosophical inquirer must orientate himself to these, or he increases his risk of being either misunderstood or ignored.

In reviewing theories of knowledge what strikes one most is the general recognition of what may be termed two poles of certainty. We are certain that, e.g. 2 + 2 = 4, and again, when we see, we are certain that it is light. Certainty in the first case is called knowledge of a truth, or thought-knowledge: certainty in the second is called knowledge of a fact, or sense-knowledge. But whereas any sense-knowledge involves something 'actual' occurring at a given place and time in a particular individual's experience, mere thought-knowledge involves only relations of ideas. But these ideas, or 'concepts,' as we nowadays call them, have neither date nor place marks, nor do they imply any 'given' experient, that is to say they are not, as such, actual, or facts at all. In short, pure thought-knowledges are described as universal, rational and a priori, in other words as true apart from experience: sense-

knowledges as particular, contingent and a posteriori, in other words as actual only in experience. It seems not unfitting, then, to describe such knowledges as polar opposites. Yet both are ours, and we are conscious of precisely the same necessitation to assert as we do, in both cases alike. They cannot then be radically independent; for if so, it should be possible

To think that two and two are four, And neither three nor five,

before we have actually distinguished this and that. Nor can they be radically disparate, for if so, what could be meant by saying that pure truths are universally valid, i.e. are always applicable to matters-of-fact? But though radically neither independent nor disparate, there is still between these 'poles' a certain opposition in respect of order. Whereas, for us, sense-knowledges are chronologically prior; in themselves or absolutely, thought-knowledges are logically prior, as Aristotle long ago pointed out. Facts are unintelligible without ideas; but, for all that, facts for us precede them; and the abstract universals of the one never supersede the contingent particulars of the other. Moreover, psychology seems clearly to show a continuous advance from the lower level to the higher. We seem, therefore, justified in beginning our epistemological investigation with some analysis of sense-knowledge.

What have we here at the outset, we may first inquire? A bare cognition or sensation, it is said. But this, if we disregard heredity, can hardly be called a knowledge ¹; for the bare sensation brings no 'what' with it. Hence the psychological paradox: all cognition is recognition. We can imagine a sentient creature undergoing a series of such Erlebnisse—to use a happy German term—as those which we now describe in saying: "It is lightning," "It is raining," etc.: still, if similar Erlebnisse never recurred, no amount of mere differentiation without the possibility of assimilation would ever yield know-

To call it feeling, as is frequently done by many writers on epistemology, is to confuse two well-differentiated factors of experience, and that no philosopher has the right to do.

ledge or permit of any advance in experience. Yet these existential 'positions' disclose the fundamental duality of experience, a subject confronted by an object. If so, Descartes' existential position Ego sum implies the correlative Id est, the Id or It being the objective continuum, as we may call it. But these correlative 'positions' are actual for experience only when there is change, either in the differentiation of the objective continuum, or in the attitude of the subject, or in both. These primary differentiations, which we come presently to perceive, have given rise to the first and oldest problem with which epistemology has attempted to deal—the problem of external perception, as it is commonly called—i.e. of the perception of an external world.

As of events in general, so of these events which we have called primary differentiations, it is asked: What are they, and how are we to account for them? So stated, the problem has hitherto proved to be intractable: no solution has as yet found general acceptance, and these questions are still keenly discussed without much sign of positive agreement. Now many times in the history of thought it has turned out that inveterately insoluble problems involve questions that should never have been asked. This seems to be the case with the problem of external perception. To the question: "What are these bosita?" the only answer seems to be: "They are just what they are immediately known as, the immediate objects of an individual subject." This correlation or duality of subject and object is then to be taken as the bed-rock of experience. Those who like may call it an inexplicable mystery; but at any rate, historically regarded, there is nothing earlier or plainer. Some agreement, however, has perhaps been reached as to what the primary objects of experience are not; and so far we may admit there has been some advance. 'Subjective idealism,' e.g. is becoming what the Germans call ein überwundener Standbunkt. There are few, if any, who now confidently maintain that sense-data—as we are still wont

² Cf., e.g. the problem of squaring the circle, or that of the possibility of perpetual motion.

metaphorically to call them—are verily 'subjective modifications.' Feeling and activity are doubtless modes of the self and both are involved in the perception of objects. But they do not constitute such objects: on the contrary, they presuppose them. Again, these primary objects of experience cannot here with any propriety be called phenomena, still less epiphenomena: this, too, is coming to be generally recognised. These terms involve not only perception but conception, and their premature employment has led to much confusion.

More debatable is the further question: How are these facts to be explained? Well, if it be right to maintain that as such they are ultimate, then obviously this question, too, is one that ought not to be asked: they cannot be explained, if there is nothing plainer. But surely, it will be urged, they must have some cause. This question, however, as it stands, is ambiguous. It may refer either to the particular differentiations of our continuum as they severally occur, or to the continuum as a whole, in other words to all its differentiations collectively. But now the sole function of the category of cause and effect is to establish a specific connexion between one event and others, a restriction which does not justify its application to the primordial relation of Subject to Object, which is plainly presupposed. It is true that the perception (Vorstellung) of an objective change entails a subjective change (Selbststellung): of such actions and reactions experience, as complete, primarily Still the immediate awareness which mediates this interaction seems to be neither the effect of the Object alone nor the product of the Subject alone.1

Before passing to the epistemology of thought-knowledge it is important to note what has frequently been overlooked, viz. that there are certain categories which we discover on reflecting about sense-knowledge, to wit, quality and quantity (as intensive and extensive), together with certain perceptual relations of comparability and compatibility, as well as relations of temporal and spatial order.²

¹ Cf. the writer's Naturalism and Agnosticism, 4th ed., 1915, pp. 409 ff.; earlier eds., ii, pp. 117 ff.

² Cf. the writer's three articles on 'Sense-Knowledge' in Mind, 1919-20.

The continuity in the development of experience from the sensory level to the level of thought is, as already said, rendered reasonably probable—to say the least—by genetic psychology; and the advantages of this way of approach are great. Still the gap between the lowest existing races of mankind and the highest species of anthropoid apes now extant is far and away the widest breach of continuity known to the biologist, considerably lessened though it has been at both extremes by pre-historical research. It is not surprising, therefore, that our two poles of certainty have been and are even now regarded as not only distinct but as essentially disparate. Nevertheless the advance of every normal human being living in society, from the one level to the other is only a recapitulation of the advance very gradually achieved through the 'social medium' by the race as a whole. This fact was overlooked altogether by Kant and earlier thinkers in the eighteenth century. Yet it is entirely through the inter-subjective intercourse thereby attained that what thought-knowledge we have has arisen.

In being communicable, thought-knowledge differs from the so-called sense-data of individual experients: and yet, if there is continuity between them, thought-knowledge must be at least implicit at the perceptual level. And this appears to be the case. The conceptual relations which are on all hands recognised as absolutely certain are those of the closely connected exact sciences of logic and mathematics, and of none But these relations all have their perceptual counterbeside. The behaviour of sentient creatures would otherwise be inexplicable. The primary difference between knowledge and thought-knowledge lies then not so much in the relations as in the relata. In the first place, percepts present the actual, ideas or concepts do not; a thought can never 'posit' an existent, though it can postulate one. Again, the ideas of logic and mathematics are either mere ideas of the form, or of the formal relations, of things. As such they are intellectual constructions. These constructions involve abstraction, but this—an incidental consequence of our 'limited span

Cf. Arts. on 'Sense-knowledge' quoted above, II, pp. 447 ff.

of prehension '—entails only a 'distinction of reason,' not a dissolution of things. These constructions further involve what may perhaps be called idealisation, meaning thereby not merely that time and place marks are eliminated, but especially that such ideas are what Locke called 'archetypal.' Lastly, as a matter of fact—again a consequence of our psychological limitation—these constructions also involve symbolization. So far the whole of exact science may be, as it has been and is, called computational or logical. But though we have a symbolic logic we cannot have a symbolic philosophy.

We come then at length to that region of knowledge which lies between the two poles of certainty just described—the domain of the concrete or real sciences. Exact knowledge and archetypal ideas we have now left behind us. We still have, however, a common fund of empirical data resting on the certainty of matters of fact; but we find no universal, rational, or a priori 'laws of nature' connecting these, none which have an unrestricted range or which cannot, without involving contradictions, be modified by further experience. Yet it is in this domain that the twin categories of substance and cause first emerge, and emerge solely as the result of intersubjective intercourse. These concepts doubtless presuppose the acquisition of that perceptual acquaintance with things, which—as already said—the behaviour of merely sentient experients implies. Such perceptual acquaintance, however, consists merely in recognising what Hume called 'collections of simple ideas,' or rather qualities: these we presently observe to be 'closely and inseparably connected by the relations of contiguity and causation.'

But there is only a single instance in which such a 'constant union with each other' of certain definite qualities is presented always, viz. in the case of our own body. All other 'things,' such as chairs and tables and external objects generally, are presented only intermittently. Qualitative identity, then, is the most that perception can suggest in their case; but at the self-conscious level we come to ascribe to them numerical

identity as well. And this we seem to do solely on the analogy of our 'bodily self.' In other words, in interacting with perceptual things we attribute to them an individuality and a persisting actuality like our own. Mutatis mutandis, the same account holds good of the source of the category of Causality: indeed, as has been often said: 'Substantiality is through and through Causality.' It is so, that is to say, when by 'cause' we mean an efficient, primary, cause or agent, and not merely the secondary or 'occasional causes' that we are said to perceive. Here, again, then we return to the category of subject (or substance), assuming with Leibniz that 'activity is of the essence of substance in general.' Temporal and spatial contiguities, or circumstances, of course, still remain, or the activity would be indeterminate. But so-called 'positive science' recognises only these, and professes to repudiate the real categories of substance and cause; since they do not help it in systematically describing nature, which is its one concern. And that is true; but what suffices for positive science cannot content philosophy, which is bent on understanding and appreciating this nature which environs us.

In all sentient life we may say there is something akin to this understanding from the first; and when life has reached the level of the untutored mind of the child or the savage, such understanding has become literally an almost undiscriminating animatism or anthropomorphism. Things for primitive minds are much nearer to what we call 'ejects' than to the seemingly inanimate objects which we now dis-criminate from these. The term 'eject,' then, may be regarded so far as covering the two cases—that of things personified and that of actual persons; and the assumption of the former seems to be implicit before the recognition of the latter is explicit. But in the former case, as already said, the assurance of numerical identity is always lacking. Not so in the case of persons; though, like things, they, too, come and go in our environment. But mutual intercourse may here place personal identity beyond question even when changes in outward appearance prevent immediate recognition. Finally-what utterly bars solipsism—is the fact that it is only through intersubjective intercourse that we reach the level of explicit selfconsciousness at all. Now it is this intercourse that best deserves to be called understanding as distinct from mere intellection; and it is a defect of language that these two terms are so commonly used as synonymous. For the 'sympathetic rapport' or entente, which obtains between persons—and is not wholly wanting even between them and the domesticated animals—makes possible a kind of 'interaction' that mere intellection or the positive sciences can never explain.

We find, then, that there is a part of the world which we can understand, while the rest of it we can prima facie only more or less systematically describe. Knowledge of the first kind we may surely rank as at once more real and more valuable. If we could interpret the world throughout and strictly in terms of mind, we should have accomplished more than if we had only achieved a complete systematic description of it. The one, established in principle, might practically be sufficient for us, which is more than the other, though completed in the utmost detail, could ever be. Meanwhile much remains to be done from both these epistemological standpoints: the world is for us not yet completely intelligible nor has positive science as yet succeeded in systematizing it completely. So far, then, the old Cartesian dualism seems still to stand.

Leaving epistemology aside for a time, we may now therefore turn to the ontological theories which this dualism has entailed. The one is what is commonly called idealism, or—as it seems

This Kant sometimes called mutuum commercium, but it is not to be confused with 'the equal and opposite action and reaction' of dynamics which he had chiefly in view in his third analogy, treating of Wechsel-wirkung or Gemeinschaft. The kind of interaction here meant is that reciprocity in action (Wechselwirkung) which intercourse (Gemeinschaft) alone makes possible. It is not the 'transcunt causation' which Hume and Lotze between them have discredited. Intelligent intercourse is never a physical process All the activity which it entails is the immanent activity of the experients concerned: in this there is nothing comparable with the two sides of a physical 'stress' algebraically represented by an equation (Action — Reaction = 0). Cf. Naturalism and Agnosticism, 4th ed., pp. 527 ff., earlier ed., volii. pp. 237 ff.; also The Realmof Ends, pp. 215 ff.

clearer to say—spiritualism: the other, formerly known as materialism, is nowadays more commonly styled naturalism. The fundamental difference between them is that whereas naturalism, as distinct from materialism, allies itself with agnosticism, and so professes to deal solely with phenomena, spiritualism assumes that persons are not phenomenal but real: in other words that the categories of substance and cause which positivism discards find in personality their source and paradigm.

Now a phenomenon per se is an obvious contradiction: as Kant rightly maintained, "something must correspond to a phenomenon which is not itself a phenomenon." Naturalism. too, is forced to admit this, but insists, as Kant also did, that this 'independent something' is itself unknown and unknowable. But whether the reality 'corresponding to phenomena' be one or many, that reality in any case must be the ground. the ratio essendi, of the nature which naturalism claims merely to describe. Is it not, then, plain that the so-called 'laws' of nature are due entirely to the one reality, if there be but one, or to the many realities collectively, if there are many? Again is it not plain that whether this ontal 'corresponding to' the phenomenal be one or many, phenomena-so far from concealing it—in fact reveal it, partially at least—though, so far as we know only in part or imperfectly, such real being can never be completely knowable? If so, then the technical meaning of phenomenon, as a special kind of object entirely distinct from the object which is partially known through it, seems so far philosophically superfluous. The objective whole of experience—Kant's 'transcendental object'—whether regarded as one or many-is actually just as real as the subject of experience—Kant's 'transcendental subject.' In short, we reach again the fundamental duality, Ego sum et aliud est.1

We must retain this duality of subject and object; but need we also retain the Cartesian dualism of matter and mind?

¹ Meanwhile, however, we have only suspended our epistemological inquiry: when we resume it, this concept of the phenomenal will meet us again in another context. Cf. below, p. 44.

In the duality the Ego or subject on the one side is a unity, and the Non-Ego or other confronting it, a continuum. question we are now raising, then, is whether the differentiations of that continuum, so far as we individuate them, correspond not merely to objects but to ejects also, i.e. to other subjects. If they do, may we not say that herein we have ground for a complete understanding of the world? If they do not, still must we not say—the moment teleological questions arise that at least 'nature is organic (i.e. subservient) to mind'? Between these alternatives we cannot, in the present state of our knowledge, dogmatically decide. The latter alternative corresponds in the main to the systematic occasionalism of Berkeley and Lotze: the former carries us back to a monadology resembling that of Leibniz. Either way stark dualism is avoided: matter and mind cease to rank as ontologically on a par; for both these alternatives are definitely 'idealistic.' Yet the monadist's can claim to be older and simpler, and to have the completer continuity. Moreover, occasionalism postulates more than from the pluralistic standpoint we are as yet prepared to admit.

But can a pluralistic 'personalism' be conceivably made to work? Not unless we can substitute 'bare monads' for the inert matter of Newton's third definition, still retained in what is nowadays known as 'the old classical mechanics'; and commonly regarded as real. The new 'molecular dynamics,' however, may be said to imply a Leibnizian distinction which Newton, in talking only of bodies and particles, entirely ignored: the present outlook, in consequence, is considerably changed. Both bodies and particles are simply aggregates, what Leibniz called materia secunda: this, in being 'phenomenal,' differed essentially from his monads, which he held to be all alike real. In accordance with his position that what does nothing is nothing, reality is here taken to connote both individuality and activity or behaviour. We are ourselves personal agents and we have grounds for assuming a continuous series of such agents ranging indefinitely higher and indefinitely lower in the

scale of being than ourselves; though the latter are still 'personal,' i.e. experients, in some sense. In short—to use the words of Pope, which, by the way, he owed to Leibnizwe find ourselves 'midway 'twixt nothing and the Deity.' We have admitted that we cannot say what the reals are corresponding to the physicist's concepts of molecules, atoms, electrons and ether-if there are any; for long before we get so far towards the lower limit we are aware of a disparity which precludes any direct intercourse. Positive science, too, as we have seen, proclaims that the things per se behind its phenomena are unknown. Accordingly it contents itself with an abstract analytical scheme of numerical coefficients as its ultimate basis. But none the less the concepts which it invariably employs when 'applying' or specifying its formal symbols—as, for instance, action and reaction, force and energy, potential and actual, attraction and repulsion-belong primarily to our immediate experience. They are, in fact, analogical attributions to the objective of what is fundamentally subjective: in other words, they are tantamount to regarding the objective as ejective, even beyond the range of direct verification.

As to the concept of inertia, the bed-rock of dualism —it is used on the one hand as synonymous with inactivity (cf. the German Trägheit) and on the other as equivalent to persistent duration through time (cf. the German Beharrung). Here assuredly, on looking closer, we discover a covert contradiction; for 'enduring,' 'persevering,' 'persisting,' and other variants for what is technically called 'conservation' all imply activity, and have their source in the experience of a living and acting self. But this experience involves 'interaction'. For of a Self without its correlative Other—a subject with no environment—it is all one whether we say that it would be inactive or that it would be non-existent. Again, the reals of the world, be they what they may, have not 'come together' from nowhere: they have always been together. So, then, whatever the

¹ Cf. Kant's saying: "On the law of inertia . . . the possibility of physics proper entirely depends."

mathematician in his pure science of dynamics may assume, the physicist, who seeks to apply it, finds nothing answering to inert individuals: here all is actually interaction. interaction for the psychologist rests ultimately on appetition or aversion; for the physicist it rests ultimately on actual attraction or repulsion. So long as we can 'understand' the facts confronting us, so long, that is to say, as we have direct evidence of mind, we interpret bodily movements as due to motives, in other words, to appetition or aversion. Even in plants, where there is evidence only of life, we find adjustments to environment which are at least analogous to behaviour. Is it not then simpler—to say the least—to regard the ultimate 'reals' as entelechies like the bare monads of Leibniz rather than as inert particles of the dead, brute matter of Descartes' abstract res extensæ, hypothetical entities which in molecular dynamics are found inadequate to describe the facts? short, the concept of inertia, suggested in the first instance by Galileo's experiments with tangible masses has since been tentatively and gradually transformed into an a priori law of conservation implying both substantiality and causality, i.e. the precise contrary of what it meant at first.

Returning now to epistemology, there are two closely related problems which Descartes has bequeathed to us—that raised by our belief in an external world and that of the connexion between body and mind. In dealing with the first we naturally begin with the categories derived from sense-data (cf. above, p. 32). Two of these, intensity and protensity, present no difficulty to the pampsychist. It is otherwise, however, with extensity and sensible qualities: they are applicable only to matter, which is said to occupy space and to be characterized further by the so-called secondary qualities, 'phenomena' which again imply extensity. This, it is allowed, is just what cannot be said of minds. When, then, it is maintained that 'occupation of space' involves that what is called matter is a substance co-ordinate with, and yet wholly disparate from, the minds that perceive it, we have the Cartesian dualism again, coupled

with the duality of subject and object. But we have seen that such unmitigated dualism cannot be maintained, and we have found positive science advancing so far to meet Berkeley as to allow that matter, as we perceive it, is only phenomenal, since its esse is unknown. And if we consider the development of knowledge—so far as it has been orthogenetic—we find the earliest judgments we can frame, our so-called existential judgments, attribute reality, i.e. individuality and activity, to the one continuous objective environment; and at length, when definite objects are discriminated within this, they, too, are regarded as active individuals. The question then remains: Of what nature is that real which external phenomena in part reveal? One answer only is precluded: such real is not something inert or passive. As already said, it may be a Supreme Mind directly intervening, or it may be the collective action of bare monads or entelechies (Leibniz's materia secunda). Before attempting to get any further, it will be well to try to deal with the second problem, viz. that concerning the connexion of 'body and soul,' as we commonly say.

We know nothing of disembodied souls. But embodied souls, according to Descartes, imply a 'substantial union or blend' of matter and mind; for sensation cannot pertain either to matter alone, as by him defined, nor to mind alone, as by him defined, i.e. as 'pure thought.' This asserted unity of incompatibles was then tantamount to a miracle; and Locke so far agreed with Descartes as to maintain that God at any rate could have annexed thinking to matter.² It may fairly be said that this and all discussions of the so-called psychophysical problem on the basis of an absolute dualism of this sort have proved incomprehensible. Something intermediate was therefore soon felt to be indispensable. We may leave aside 'the systematic occasionalism' previously mentioned; for that is incompatible with materialism. A favourite via media, incompatible, however, with spiritualism, was found in the ancient

2 Cf. Essay concerning Human Understanding, IV, iii, 6.

As the existence of intransitive and transitive verbs in connexion with every sense seems plainly to shew.

hypothesis of a spontaneous generation of life—a costly first step, yet one obstinately maintained, because it seemed to make the subsequent advance to mind easier. Such generatio equivoca is, however, no longer scientifically accredited. And in any case, if there is really no inert matter, there can be no abiogenesis; for there can be nothing altogether lifeless.

Meanwhile, the whole problem, looked at so to say from the other side, wears altogether a new face. Here what strikes us first is that life implies function, and it is its function alone which makes a structure intelligible. But function is a teleological concept entirely beyond the mere physicist's horizon; it is also a concept which essentially differentiates an organism as such from what it appears to be when observed only externally. Internally regarded, an organism has been described as a structure in which the whole and the parts are reciprocally means and end to each other. Leibniz interpreted this to mean a teleological unity consisting of a dominant monad and subservient monads. At the same time he maintained that all monads are 'windowless.' It seems possible, however, to put a simpler and more consistent interpretation upon the facts by rejecting this part of his theory. In keeping with our present knowledge about sensation and movement we may assume that certain subservient monads discharge a receptive and others a reactive function: these together we may call their functional relation to their dominant monad. But beside this. these monads must have a further and quite different relation to the common environment of monads generally: this we may call their foreign relation. Under the more familiar names of internal and external we have just recognised these relations as they figure in dualism. For the physiologist, what corresponds to our ministering monads is that minute part of his external world which he calls a brain: for the psychologist, what corresponds to them is the entire world without restriction. as it is from the standpoint of their dominant monad. It was, in fact, just the incompatibility of these relations, when divided between two disparate substances, which gave rise to dualism,

and so led Descartes to the shocking inconsistency of maintaining that animals are only machines, but that man, on account of his reason, was a miraculous exception, an inconceivable blending (mélange) of pure thought with such an automaton.

The pampsychist believes that such difficulties are avoided (1) by recognising only one kind of reality, viz. that of experients ranging continuously between two limits, an upper and a lower, both inaccessible to our direct apprehension; (2) by observing, so far as that is possible, with what this diversity of rank or standpoint, as Leibniz called it, is correlated; and (3) by assuming in accordance with the principle of continuity that the same kind of correlation, mutatis mutandis, holds good also between bare monads. The first of these positions we have already discussed: it is the second that we have now to consider.

The fact of what is known as psychoneural parallelism, viz. that the more complex the organism the more advanced the experient to whom it pertains, at once presents itself. But what precisely is the real connexion which this invariable parallelism must surely imply? In this inquiry we cannot do better than Plato did in a like case—turn to where such a connexion is 'writ large.' The analogy between an organism and a social community is at once old and obvious. Now the main characteristic of an effective social medium is the promotion of the mutual convenience of its members, in other words, a complex 'sympathetic rapport.'1 The relation which we all sustain to our domestics and to public servants is of this sort: it is, that is to say, a functional relation of which we are ordinarily unconscious. On this analogy, then, we seek to interpret the relation of dominant monads to their subordinates. Through the foreign relations of these, each dominant monad is, we suppose, kept au courant with its own objective world, and the more complexly this immediate

Not, of course, a pre-established harmony nor a final one, but a routine, which, so far as it is effective, is unobtrusive and taken for granted.

entourage is organized, the more the dominant monad can know and do.

But the analogy of an artificer and his tools (opyava) which Aristotle has taught us to employ, fails to represent the intimacy of the functional relation we are now considering. A tool is always an object, however closely, so to say, the artisan may live himself into it while it is in his hands. But a neuron is never an object for the psyche it subserves; though it is always an object for the physiologist who can never get beyond its foreign aspect. Hence my brain, which is opaque, windowless inwards, is, so far as it functions, diaphanous outwards for me. So far, it is, as we say, 'secondarily automatic' though doubtless such action was only gradually achieved by a long process of trial and selection. I only now become aware of failure to function through the organic pain produced thereby. But a neuron, too, is an organism, and its functioning depends in turn on its own organization; and so on down the long descending scale of life till we reach the unicellular organisms or Protista of the biologist. From these we pass to our third position.

Here the attempt is to be made, mutatis mutandis, to interpret the relations to each other of bare monads on the analogy of the behaviour of living and sentient organisms. The difference is that bare monads have no organism, no especial ministering ménage. There can then be no talk here of psychophysical parallelism, and the distinction of functional and foreign relations also lapses. There is no longer any 'division of labour' and so the two relations are not yet differentiated. The sole remaining resemblance is that this 'naked.' or elemental monad is regarded as an entelechy, or inchoate soul. This is what Leibniz meant in asserting that the principle of continuity 'destroys atoms.' But what exactly, it may be asked, is an entelechy? It is a subject endowed with what Spinoza meant by 'the conatus which animates every individual thing '-not by an incongruous vis inertiæ but by a vis perseverantia, a concept more in keeping with the 'modified dynamics' of to-day. It is true that we cannot

ear-mark these ultimate entelechies or psychoids, as they have also been called, nor therefore directly observe their behaviour.

But if we cannot perceptually identify bare monads, what exactly is the reality partially revealed in sensible qualities? In raising this question we return to the problem of external perception where we left it just now (p. 36). The pampsychist, we found, preferred to regard sensible qualities as corresponding to the activity of an aggregate or complex of bare monads rather than to an inanimate 'system of nature' divinely devised as to serve an instrumental medium of intercourse in 'the realm of ends.' In resuming this discussion we have to bear in mind the distinction between sense-knowledge and thought-knowledge: with the latter we have here, in the first instance, nothing to do. Leibniz, in describing materia secunda as a phenomenon bene fundatum-inasmuch as it made science possible and was thereby distinct from illusions and phantasms, which lead neither to system nor to prediction—was going too fast. At the sensory level illusions are percepts and phantasms do not arise. Again, percepts are posita, the objectively real in the duality of experience: the subsequent superposita of thoughtknowledge, of which the concept of the phenomenal is one, do not, we repeat, as yet concern us.

For our present inquiry as to the nature of the real, which is partially revealed by sensible qualities, Locke seems to offer a better start. If our sight were some hundreds of thousand times more acute, "we should," he supposed, "come nearer to the discovery of the texture and motion of the minute parts of corporeal things." But, as Leibniz reminded him, if matter is infinitely divisible—as they both thought—we should still never get beyond percepts that were 'confused,' that is to say, consisting, according to Leibniz of petites perceptions that we were unable to discern separately. Here both Locke's supposition and Leibniz's stricture are based on the assumption that experience begins with a 'manifold' of isolated presentations which is gradually 'synthesized' as experience advances. This 'atomistic psychology' is certainly a one-sided and

imperfect account of the facts. Experience, it is now contended, begins not with the integration of a manifold but with the differentiation of a continuum. In another respect, however, these two thinkers differed. Locke maintained the existence of sensible minima or 'simple sensations,' which vary as the organisms of the percipients varied. Leibniz admitted the variation but denied the simplicity. A propos of this we find Pope asking: "Why has man not a microscopic eye?" and answering: "For this plain reason, man is not a fly." The plain reason is, of course, that microscopic eyes without micrometric hands would be utterly useless. But now all the organisms with which we are acquainted are in this respect more or less macrobian-to invent a word. The lower we descend in the scale, however, the more microbian is 'the life and mind' concerned, the less the range in time and space, and generally, the less the differentiations of the environment become.

We find, then, everywhere a certain correspondence between living organisms and their specific environments: as regards intercourse, a man understands men, a mouse mice, and a mite mites; and as regards interaction, each interacts with the rest of the common environment in accordance with its perceptual scale. So far the monadist may claim to have set forth one way of solving the two problems which proved hopeless for the Cartesian dualism. But the crux of the whole lies in its lower limit—the bare monad. Here we have little beyond analogy to guide us; for, on the one hand, the bare monad ex hypothesi has no organism distinct from itself; 2 and on the other, its environment appears, at first sight, to be just an undifferentiated continuum, the common matrix of all. Since, however, no two monads are supposed to be altogether alike. to that extent for no two will be precisely the same environment. Otherwise it might be supposed that at the outset the universe was everywhere in complete static equilibrium, so that nothing

And it is the more serious since bare monads must enormously preponderate in the sensible world, i.s. in the 'constitution' of what is called 'inanimate matter.'

Hence Leibniz called it an entelechy, but not a soul.

could happen save by the intervention of some Primum movens from without. But assuming that monads are all conative, that they are never isolated, and that no two are alike, it would seem that the supposition of any intervention is superfluous. A change in A's environment due to his appetition or aversion would, if it affected B, be merely contingent for him, and might itself be due to some prior purposive action of C, which was similarly contingent for A. Keeping in view these two aspects of events--subjective selection and the 'chapter of accidents'it seems possible for the monadist to account in general for the stability and the epigenesis that we find in the historical world.1

This is as far as actual knowledge, eked out by analogy, will carry the pluralist. Though a world of elemental monads in interaction may be his last word on the historical method, there are two reasons why it does not suffice for philosophy. The first—a theoretical reason—is that such a world is ontologically incomplete.2 A plurality of beings mutually independent as regards their existence and yet mutually dependent as regards their experience, a plurality of finite beings, that is to say, inevitably suggests the idea of a common ground to account for their existence and for their cosmological unity. So we come naturally to consider what we have called the upper limit of pluralism. Here we are left entirely to general reflexions; for we have no direct knowledge of any beings superior to ourselves; reasonable though it be to assume the existence of many grades of such. But in accordance with the principle of continuity all of them will still be finite, and the upper limit we are seeking will therefore lie beyond them. The vital point is to remember that it is from the standpoint of the Many that we set out: otherwise our whole inquiry becomes meaningless.3

Cf. the writer's Realm of Ends, Lects. iii-vi, and for further elucidation of terms see the index.

For the second, see below, p. 48.

Apart from the historical we may call our lower limit zero and our upper transferite but seems in reference to what is calved both.

and our upper transfinite, but save in reference to what is actual, both alike will be indeterminate.

Here again, as in the case of the lower limit, we come upon a sort of crux. We can call nothing absolutely independent which requires a ground for its existence. We can call nothing a real ground which implies no reality beside itself: logical it may be, real it cannot be. We seem, then, to be faced by something inexplicable: this is our crux. We can neither deny the reality of the Many nor assert the absoluteness of the One. But we might call the two together the Absolute, if only experience warranted us so to do. Ultimate facts are all inexplicable, but that is no reason for denying them. Can we, however, dogmatically assert that an Absolute consisting of God and the World is verily ascertained fact? Surely not in view of the many 'radical empiricists' there have been and still are who deny it. All they find is continuous correlation, but nowhere anything absolute: for them our Absolute is but an illegitimate hypothesis, since it can never, they maintain, be scientifically verified. Such an objection betrays just that failure to appreciate the difference between science and philosophy, characteristic of an exclusively empirical or positivist standpoint. Philosophy is not directly concerned with matters-of-fact: it cannot, of course, contradict experience; but its one aim is to understand this as a whole, to find a unity and a meaning in the entire sum of things beyond the so-called system of nature as science describes it. If the theistic ideal provides these it will be philosophically justified, though it be not empirically verified.

It remains, then, to consider this 'flawless ideal' as Kant called it. We start from the freedom of the Many, for as Kant has said: "Freedom is the only one of all the Ideas of pure reason, whose object is a thing of fact (Thatsache)." It is this fact which disposes for us of the singularist's assumption of an absolute One and his reduction of the Many to mere modes of that. Again, in assuming God to be the real ground of the world, we speak of it as His creation; and this bars out pantheism, for it implies a transcendent activity. Finally, we cannot identify this creative activity with transeunt causation, for that presupposes an alien something: a chaos to be shaped into a cosmos, as people were wont to say. But God is no

artificer: there can be nothing outside Him to determine His pure activity in 'positing' the world. We, too, talk of 'positing' our Non-Ego; but in so doing we are receptive rather than active: we cognize but we do not create. Nevertheless among what may be called our superposita, especially in the relative creations or syntheses of human genius, we find a helpful analogy in our attempts to interpret the world as the self-laid foundations of the divine experience. But experience at our level involves personal intercourse and co-operation. So we come back to the fact of freedom from which we started: we may now define our Absolute as 'the realm of ends,' 'the Kingdom of God ' in which He is supreme yet all His subjects free to work together with Him.2

The mention of a 'Kingdom of God' brings us to the second. a practical reason, for regarding a merely pluralistic world as philosophically insufficient. Such a world might be a commonwealth of experients, but there would be no complete experience embracing them all—a Providence immanent in the world and identical with the Creator, who is its ground. It is true that the history of the world in the widest sense reveals a steady 'tendency to progression,' as even Darwin, in expounding natural selection, allowed. But the humanitarian ideal which this progress prompts us to entertain must ever remain indefinite in character and uncertain of attainment, unless the theistic

¹ Cf. Kant's Intellectuelle Anschauung, already foreshadowed by Thomas

Aquinas.

Here a question arises which has been much discussed: Can personality be attributed to God? That it cannot be attributed to the Absolute is in general allowed; but that it must be attributed to God, as by theists it always is—seems obvious, if to say 'God is a Spirit' means anything at all. The difficulty often felt in doing so is largely due to forgetting that 'there is none perfect save God.' This truth seems best expressed not by calling God 'super-personal'—whatever that may mean—but by recognising that human personality, though the highest that we know, is still imperfect and incomplete. It is by intercourse with others that we have come to know ourselves, but this acquaintance is never more than partial. We know that we are; but our restriction to one standpoint in the whole sum of things—whence we have only a perspective view—makes it impossible for us to know completely what we are. In this respect our personality is at best, as Lotze truly said, "only a pale copy of the perfect personality that pertains to God alone." Cf. his Microcosmos, Bk. IX, ch. iv.

ideal can also be accepted as verily flawless and assured. Then finite experiences and the divine experience will both have always been and will both always continue to be real factors in the history of the world. Now in this history there is one idea which, implicitly or explicitly, is valid and operative throughout: Plato called it the "Form of the Good," and we nowadays include it as foremost among the categories of value. Between these and the teleological categories there is a close connexion. But this axiological category is fundamental, as is evidenced in the common saying, quidquid petitur petitur sub specie boni. There is, however, a vast distance between the diverse species boni of individual experients and the essential Form of the Good which theism regards as eternally present to God alone. This, from our temporal standpoint, is the distance that history has to traverse.

It was from this temporal standpoint that we began our study of the historical world in which teleological and axiological categories first emerge. And here we come at once upon the radical antinomy—inseparable from dualism—between science and history, the mechanical and the moral aspects of things, an antinomy which carries us back to the very dawn of Western speculation. Starting, however, as we do from freedom as fundamental, this antinomy is for us no longer a live question. It is useless to think of interpreting nature save as there is something in it germane to life and mind.

But there are other questions which both sides of this antinomy suggest; for the law and order of the system of nature entails so-called physical evils; and the freedom and finitude of self-conscious agents involve fallibility and peccability—in a word, the possibility of moral evil. This possibility has become actuality in this world of ours, the only world we know. In discussing these questions, then, it has to be remembered that we cannot assume the existence of God so long as they stand

It has been discussed by the writer in Naturalism and Agnosticism, Lect. xix, and in an Adamson Lecture entitled Mechanism and Morals: the World of Science and the World of History (Hibbert Journal, vol. iv (1905), pp. 79 ff.

in the way, and the extent to which that assumption is justified will depend on the solution of them we may reach. If we fail to justify it, we are left with the difficulties of radical empiricism already discussed; we must then content ourselves with the 'fighting chance of safety' to which Huxley and William James referred. But so far we have seen that those are precisely the difficulties which theism would remove: so far, then, we start with, at any rate, a presumption in its favour.

The devastations wrought by storms and earthquakes, the ravages of plagues and parasites, in which the highest forms of life are sacrificed to the lowest, these are commonly regarded as the physical evils most damaging to theism, for they seem to the ignorant so wanton and so incompatible with beneficence. But it is obviously useless to attempt to estimate the significance of such facts-if they have any-apart from their place in the organization of nature as a whole. Here, as to the facts, we must take science as our guide, though we may demur to its competence to interpret the whole. We learn, then, from science that in the order of nature what we call its higher stages are dependent on the lower; in other words, further development pre-supposes a certain fixity and stability already attained. So we come from our temporal standpoint to regard the whole course of the world as epigenetic: natura naturans, further 'creative synthesis,' emerging from the natura naturata previously achieved. We call this synthesis creative because the whole has now new qualities and relations, and is thus always more than the sum of its parts. Otherwise we should have only lability, where a new configuration replaces an older which is then no more. But here the old still persists, and so there is the stability implied in epi, but there is also the further organization implied in genesis.

It is in the light afforded us by this growing structure and its functions that we must estimate the significance of such physical evils as those just now alleged. The physicist's conservation of energy, his attractions and repulsions, gravitation, heat, etc., are here fundamental. The solid ground of nature, the chemical composition of land and sea, the circulation of

the atmosphere, wind and rain -on all which the very possibility of any life depends-are thereby determined. Earthquakes, droughts and storms are also incidental consequences of these: to prevent such 'relative evils' would mean to forego all the possibilities of good that life brings. Bacteria, again, are the first stage in the organization of life; and infectious diseases arise as their incidental result, emerge, that is to say, in certain artificial conditions, where man meddles with nature or neglects her laws; for they are seemingly unknown in 'wild nature 'left to itself. Finally, the case of parasitism would be a serious objection to theism if the pre-Darwinian view of the origin of species were accepted; but when that origin is found to be due to germinal variation and natural selection, the existence of parasites is seen to be merely an occasional consequence of these evolutionary factors. It again is an incidental result of 'the struggle for existence' which in general insures 'the survival of the fittest.'

But there is an ambiguity in the term 'physical evils' which here obtrudes itself. They do not pertain to nature, as science regards it, that is to say as a system of law and order. There is nothing whatever that can be called bad in this. When, then, we talk of physical evils we are regarding the world in a wider sense than the natural sciences do. Such alleged evils are relative solely to further stages of evolution beyond them: in other words, they can be called evils only for those on whom such further progress devolves. From this wider standpoint, then, the problem of all such evils seems to resolve itself into this: Which is preferable, a continuously evolving world where every stage in itself is good, or a perfect but ready-made world, a 'block universe' where there could be nothing for finite creators to achieve? In fact, however, we cannot imagine a real world so utterly different in type from ours, in which neither progress nor history could find a place.

Mutatis mutandis, the same reflexions are suggested by moral evil. Here not natural law and order, but—as already said—the freedom of self-conscious agents is the fundamental fact, if moral law and order are to ensue. Here the social

medium intervenes between the individual and nature, bringing manners (mores) and their guardians (custodes) on the scene: but thereby imposing restraints where nature imposed none. Thus the ideas of duty and right emerge. The 'state of nature,' from which we start, is a 'state of innocence,' doubtless: that is to say, it is blameless, just because it is non-moral; but for the same reason it is brutish too. It will hardly be denied that a knowledge of good and of evil is an advance on this; for it opens out new possibilities. But the two are not on a par. It was, however, of old, commonly, and is still too generally, assumed that good and evil (along with truth and error) are co-ordinate as well as contrary. But there is no unity, no principle, of evil (or of error) and no permanence of evils (or of errors) to set over against such conservation of values (both intellectual and moral) as we find. Such evils flourish only disguised sub specie boni: the more clearly their true character is recognised, the less eager becomes the pursuit of them, and the more whole-hearted the struggle against them. The good like the true then tends to 'prevail'; and herein lies the essence of moral progress.

But progress means gradual advance, and there are degrees in what is good and what is bad as there are degrees in what is false and what is true. Moral evil consists in preferring a lower good while yet conscious of a higher. It means, in other words, that a man succumbs to temptation, the beginning of all moral evil according to the Mosaic legend. But surely temptation is in itself evil—a mysterious evil for theism, it will be urged; for now, as the result of it, "the whole world," it has been said, "lieth in wickedness," and human nature, it has been maintained, is 'radically bad.' How, if that is so, can anyone speak of God as its ground? We may retort: Is it after all so certain that such temptation as we experience

The possibility of such a state of mind is psychologically plain enough. The good refused has a positional superiority in a system of values, and so is acknowledged to be higher; whilst the lower good which is chosen, is—in spite of its narrower range—the more urgent and imperative as an immediate motive, and calls for no renunciation or effort on the part of the self.

is really evil? If it were such as to make moral failure inevitable then, indeed, there could be no talk of a theocracy: our vaunted freedom would be a mockery, for moral progress would then be impossible. But that is not what we find. The opposite extreme, a world in which there was no real temptation, would mean either that men found nothing in it to 'try' them, or that they began endowed with a degree of moral perfection which they had done nothing to acquire—if that were possible. Such a world would not be an 'evolving' world in which new values were continually created, even values making so-called 'self-sacrifice' a duty. On the contrary, it would be at best but a ready-made world of indolent ease, destitute of all the moral fibre which the word virtue connotes. There is, then, we may conclude, 'some soul of goodness in things evil' but there is nothing incompatible with its Creator's presence in a world for the course of which finite creators find they have some responsibility.

There is, then, as Kant has shewn, 'room for the faith' in God, which is for religion a perennial source of confidence that the Supreme Good is assured, a confidence which for radical empiricism is avowedly lacking. But what is here meant by faith is not that our reflexions have brought us to entertain the existence of God as a more or less probable hypothesis, with which as Laplace maintained, science can dispense. This faith is not an opinion $(\delta \delta \xi a)$ which meanwhile may eke out a gap in our knowledge that is still awaiting verification. It is rather a certain trustfulness ($\pi lor us$) of a kind which is implicit throughout all life and makes knowledge itself first of all possible. It is the highest phase of that continuous striving that conation involves; the highest because it emerges as a motive only at the self-conscious or rational level of experience.

When Kant talked of room for faith, he was thinking only of the rational justification of this 'interest' of what he called the practical reason. The reason, which is here appealed to, is just that in us which prompts us to philosophize, leads us,

[:] Cf. The Realm of Ends, pp. 413 ff., 448 ff.

that is to say, to 'the thinking consideration of things.' Starting from what has been well called 'a synoptic view' of the whole we reflect about the meaning of it all. In other words, our philosophy takes account not only of the real categories implied in the world of science, which lead us to seek the proximate ground of things; it also takes account of the teleological and axiological categories of the world of history, which lead us to ask: Why, what for, cui bono are these things there? The answers which these questions receive will depend upon the character of the person considering them, i.e. on the system of values which determine his conduct. Happily the best of men, whether theists or atheists, have long agreed that the Supreme Good-whatever it be-should inform the whole course which the historical world has to traverse, if that course is to prove itself intelligible and satisfactory. Now if such a being as the God our reflexion leads us to conceive verily exists, we can believe that "there is good in everything," and that "all things work together for good": we can trust that the Good is the 'one increasing purpose' which shapes our ends. The way to this faith in the presence of such a being in the world is not closed to any—so much we may claim to have found—though to many it is not as yet clear. Till we are led to walk by this way, "we remain without assured hope in a world that is then without clear meaning." To realise these alternatives is to see the rational justification of faith.

It will be seen that this attempt to understand the world as a whole is very closely allied to the philosophy of Kant, is in line with what the Critical Philosophy might have been but for its lack of historical sense. The writer also owes much to the teaching of Lotze, who in common with Kant was much of a monadologist. Like both Kant and Lotze again he has been from youth up an interested student of the natural sciences though he has been more than once accused of 'attacking' and 'reviling.

THE ANALYSIS OF REALITY By E. BELFORT BAX

Born 1854. Privately educated

THE ANALYSIS OF REALITY

My early philosophic days were cast in Mid-Victorian times, and as was natural to a Mid-Victorian student of philosophy I began my speculative career as a zealous Empiricist. "Associational School" represented to my youthful mind the quintessence of philosophic wisdom. I swore by Lewes, Bain. Mill, and their colleagues in the popular philosophy of the day. A little later Herbert Spencer captivated me as he did most of my contemporaries, although his reference to Time and Space as products of psychological evolution in a sense puzzled me with the thought what sort of consciousness-what sort of a world-it was that was going on before time and space had evolved or while they were in process of evolution. Spencer's confusion here between the percept of sense with its form and the concept based thereupon by reflection, I was too unsophisticated to grasp at the time. But a hopeless misunderstanding of Kant was characteristic of British Mid-Victorian Empiricism. I next took to the study of Kant at first hand, my chief acquaintance with whom previously had been in the pages of Lewes's History of Philosophy. My thoroughgoing Empiricism suffered a shock, but not sufficient to upset it completely. I nevertheless began to see in Erkenntnisstheorie a "discipline" distinct from the empirical psychology to which I had been accustomed. Newer movements in philosophy of what would be termed an Idealist character now sprang up. They chiefly took the form of expositions of the Kantian and the post-Kantian movement in Germany centering round the so-called "Young Hegelian" school, which at this time (the early eighties) became popular at the English and Scotch Universities. My studies in this direction and my independent thought combined convinced me of the essential superficiality of the empirical view of the

Associational School. I saw that mid-nineteenth century Empiricism failed to grasp the fundamental question—What is Reality and what is its meaning?

The grand principle of so-called Idealism in philosophy to wit: that all that is and appears, that all reality, is in and for Consciousness - meant that, critically viewed, to speak of aught as obtaining outside the fundamental principle of consciousness, was to use a meaningless phrase. For it was clear that the very words we employed to express this or any other thought indicated nothing but immediate determinations of consciousness or their relations. It was plain to me that outside the determinations of consciousness there could be no Reality, no existence in any intelligible sense whatever. This is, of course, a commonplace position to those at all versed in philosophic thought at the present time. but to a mid-nineteenth century British Empiricist, when stated in so many words, it often sounded either unintelligible or as a revelation. The man of the period in question knew nothing, of course, of the "New Realism," which had not then been invented, but he was commonly unable to divest his mind of Locke's primary qualities of matter as existing in themselves. Of course, the doctrine of Idealism in one or another form runs implicitly through the whole history of philosophy before Idealism was explicitly formulated by Berkeley and subsequently, with a new and wider connotation, by Kant and his successors in Germany. As regards myself, I began to see in the early eighties that it was the only basis possible of any coherent view of the Universe regarded in its deepest and widest aspects.

What is termed then in general the idealistic position in philosophy became henceforth for me the presupposition of all my thought in metaphysic. Apart from suggestions, more or less indirect, in the Introductions to my translations from Kant and Schopenhauer, published in "Bohn's Library," also in my Handbook to the History of Philosophy (First Edition, 1886) in the same series, my first statement by way of a philosophical formulation of my own is contained in a little book published in the early nineties entitled *The Problem of Reality*. This, I may say, was a very slight and imperfect sketch. The view therein put forward was next embodied with much greater elaboration and further development in a larger work, *The Roots of Reality* (Grant Richards, 1906). The last and most complete form in which I have given my philosophical position to the public is *The Real*, the Rational, and the Alogical (Grant Richards, 1920).

As already stated, the so-called philosophic Idealism which for me formed the bed-rock of any rational view of the Universe was the basis of my interpretation of Reality. But while accepting the Idealist position as my basis, I was by no means satisfied with the form it had assumed in its statement by most of its academic exponents. In their expositions I found they assumed that Absolute Idealism meant the hypostatization of thought or the relational element in knowledge, while the other element in conscious experience, the immediate data, the terms of the whole synthesis, was ignored or treated in the manner of Hegel himself as an imperfect form of thought-relation., The result seemed to me to be that the Universe was interpreted as a Pan-logical abstraction. The Hegelian system was in my view vitiated by this fallacy. The primordial synthesis of "consciousness-in-general" I found to consist in (1) a subject which feels, (2) a somewhat felt, a sensum, and the reciprocal relation termed thought, i.e. the reaction of the former on the latter, and vice versa. The interrelation of the two primary data in this original synthesis of consciousness per se thus gives us three elements, two immediate data, and their connecting form of mediating relation. This interrelation between them is what we term Thought, or the Logical. I found that this primordial synthesis, consisting of thesis, antithesis, and the relational activity uniting them, constituted the original framework of all Reality, or, in other words, the basal synthesis of all concrete experience. I found, further, that in this synthesis, which practically embodies the

I use this form in deference to the editor, though the analogy of πάλλευκος suggests pallogical pallogism, etc.

essential features of the Hegelian method, has for its foundation the first mentioned: i.e. the that which feels, the Ego which becomes conscious; for the second element the somewhat felt is seen to be no more than the projection or inversion of the feeling or sensating Ego. It has no meaning save as a determination of a conscious subject. This primary synthesis, it may be noticed, which embraces all actual or possible knowledge, furnishes me with my ultimate test of truth—namely, the self-consistency of consciousness. It gives us, I maintain, the clue to truth throughout the whole range of Reality.

I have stated it above, of course, in its most abstract form as a synthesis of metaphysical elements.

Analysing further Reality or Experience in its more concrete aspects, we find new elements corresponding to those of the original abstract synthesis. In the latter it is easy to distinguish the first two elements from the third, i.e. Feltness (Sensum) and the That or Subject which feels from the logical activity that relates these elements. In this way we arrive at the antithesis of Alogical and Logical as at once the deepest and most wide-reaching antithesis in conscious experience. This antithesis, it is necessary to bear in mind, in no sense amounts to a dualism as implying mutual independence of its terms. It is the antithesis of the elements constituting the synthetic unity of conscious experience itself. The very relating activity, the outcome of which is the thought-form, is the activity of the per se alogical subject of consciousness, while it is only relatively and not absolutely distinct from the discrimination of agreement and difference within the region of feltness or of objective sensation.

In order to make my fundamental position unmistakably clear, it is necessary here to formulate at greater length what I contend are the basal postulates of consciousness on which all our knowledge is founded. When I use the word Alogical I include under it all that element in our consciousness which is not embraced under the term thought or reason. Thus it connotes the purely sensuous element in perception, also feeling per se in all its modes together with the element of Nisus, or impulse,

as such, apart from the definiteness given it by thought. Again, as regards the primitive synthesis—i.e. the basis of all Reality viewed as the determination of conscious experience—the expression Alogical covers the "pure ego" and its self-contained opposition, the "moi premier et eternel" of Jaurès with the "Anstoss" of Fichte, unified by thought as the original synthesis of Consciousness-in-general and hence of Reality. have emphasized the fact that although in the concrete world of our real experience there is no such thing as a purely alogical element any more than a purely logical element, yet in some phases of Reality the alogical is predominant and in others the logical. It is noticeable that the two terms correlate themselves to a large extent with the Aristotelian antitheses of matter and form and potential and actual-matter and potentiality always falling to the alogical side, while form and actuality are usually identified with the logical in every real synthesis. It is further to be remarked that all change, movement, evolution, etc., has as its driving force that which is primarily alogical. Speaking generally, we may say that the alogical side of Reality is dynamic, and the logical side, that of thought-determination, is static. It is the recognition of the above which forms the basis of Schopenhauer's system. Schopenhauer saw that the "urge" of things could not be furnished by thought. Hence as against the Idee of Hegel, he postulated his alogical Will as the prius of reality.

In the antithesis of alogical and logical in its application to concrete experience I found four main Modes of its manifestation. These four modes are: Particular and Universal; Being and Appearance; Infinite and Finite; and Chance and Cause or Law. There are, of course, numberless minor antitheses within the system of experience, but they are all of them, I think, reducible to one of the four pairs in question, either directly or indirectly. These last will be found to form the main framework into which the cardinal antithesis of the Alogical and Logical falls in the world of real experience.

Let us briefly examine them in the order given. (I) In the case of Particular and Universal we may notice that one element

of the antithesis—to wit, the Particular—is itself double-sided. It has an intensive or qualitative and an extensive or quantitative character. As intensive Particularity it is identical with the this-ness of intuition—with the absolute self-centered uniqueness of the content of any given moment of actual consciousness. The intensiveness of this Particular knows no limit as such. But there is also another and opposed aspect of particularity, its quantitative aspect, which consists in a potentially infinite repetition in Time and Space. This is what mediates the universal. particular with its antithesis the Nevertheless. the Particular remains through and through alogical just as the Universal remains through and through logical. Hence the Universal, as a purely logical element in Reality, however it may approach the concrete, can never per se, i.e. except in conjunction with the Particular, reach the concrete. It always remains abstract. (2) The Second Mode of the antithesis of the alogical and logical in the real world has given rise to much confusion in philosophical discussion, the terms being used in various senses. When I employ the word being I merely mean the that of the object in contradiction to the what. On the other hand, the term existence with me connotes not being per se, but the synthesis of being and appearance of the that and the "Being," as I have pointed out in my book, The Real, the Rational, and the Alogical (p. 75), really means the imputation of the principle of subjectivity to the object. In other words, it imputes an ego to the object. This may have its bearing on the animism of primitive man. It is noteworthy also that the materialism of modern science would attribute a "subjective The expression often heard, "blind, side" to all matter. unconscious matter," opens up a further point of interest-the distinction between the un-conscious and the extra-conscious. Consciousness and un-consciousness are both alike within the world of subjectivity—in other words, of possible consciousness. Unconsciousness is not extra-consciousness in the sense that an abstract idea or a bare quality is extra-conscious. The latter is extra-conscious as having no principle of subjectivity in itself,

but as being merely the appanage or object of the conscious

being in whose consciousness it appears. A stone, on the other hand, is assumed as having a being in itself. This is at least the assumption of the ordinary or common-sense consciousness whether valid or not from the point of view of philosophy.

In the infinite and finite we have our third of the salient Modes into which the all-embracing antithesis of the Alogical and Logical falls. Infinity in itself is always alogical. This statement may surprise some readers who have been accustomed to regard the logical Universal as representing the "true" Infinite. Critically viewed, it will be seen, I think, that the Infinity attributed to the logical Universal falls, correctly speaking, to the side of the "limitless repetition of instances" for which the Universal stands, but is not. In other words, it falls to the Particular in its quantitative aspect. The Universal as such is purely connotative. It excludes as necessarily as it includes. Infinity can only be given in the potentiality of particular instances it covers. It will be observed from this that I do not disdain the current usage of the word Infinite as meaning a possible limitless repetition in Time or Space or both of any given content of time and space.

Our fourth Mode of the cardinal antithesis of the Alogical and Logical, that of Chance and Law (or cause), has entered into popular thought more than the others. We commonly hear the remark that there is no such thing as chance in the world, chance being merely a term which covers our ignorance. But it must here be observed that we are dealing with the quantitative aspect of the Particular, that is, we are dealing with infinite time and the infinite collocations of the content of time. The popular notion is that an omniscient being might conceivably grasp the whole content of past, present, and future time in an "eternal glance." Now, an "eternal glance" may mean the immediate apprehension of the content of an infinite time, or it may conceivably mean an intelligible apperception that has nothing to do with time or its content. Since, however, we are dealing with particular happenings in a time-process it is quite clear that it cannot be used here in the latter sense, It must mean, therefore, in connection with chance and law

the immediate apprehension as this-ness of an infinite time content. But an immediate and actual apprehension of an infinite time-series is clearly self-contradictory. A limitless timecontent plainly requires limitless time for its apprehension. Such is the Particular in its quantitative aspect which is the realm of chance. Chance is the element of flux in the reality of change. It is irreducible to the category of true cause or law. Every fact, every happening in time is conditional as consequent on an infinite series of other happenings in time, each of which might not have happened or might have happened otherwise. Hence, in tracing back any event we are confronted with an infinite regressive series of circumstances or events without the occurrence of any of which the event in question would not have happened and each of which other events is equally and similarly conditioned by antecedent events without which it would not have happened, and so on to infinity. There is an element of law or true cause in each of these events, but the actual happening, when, where, and how it did, is not reducible to cause or law per se, but merely to immediate antecedent and . consequent-in a word, to pure chance. This element of pure chance is as much part of the total reality of any happening as its antithesis, that of cause or law."

Though literary and philosophical convenience may necessitate breaking up our subject into sections, it must never be forgotten that there is, strictly speaking, no break in the conscious process which is the subject of our analysis. From the ultimate metaphysical elements to the concrete consciousness here and now, the process is unbroken. The elements constituting the lowest terms to which analysis can reduce the conscious synthesis—to wit: pure subject, object and the interrelational thought-activity—reappear in a transformed guise at every more concrete stage of the conscious process. Each stage of reality may be analysed into a synthesis of a double alogical and a

This antithesis of chance and law will be found more fully discussed in *The Real*, the Rational, and the Alogical (pages 79-89), where instances are given in illustration of the main thesis.

logical (the connective activity of thought). I can find, however, no tendency anywhere for the thought-relation to absorb the terms related, or such tendency, even if there be such, certainly never realizes itself. For the Panlogists at the head of whom in modern times stands Hegel, the alogical is a mere sich selbstaufhebendes Moment of the logical. But were this the case it must ultimately be absorbed without remainder over in the logical, which it certainly is not.

In the timeless "transcendental process" (as the classical philosophy of Germany had it) there is no break. In metaphysics, theory of knowledge and analytical psychology we have, au fond, the same subject-matter before us. We cannot trace any sharp line separating analytic psychology from theory of knowledge, or either from metaphysic as the word is used in Modern Idealism. The world as given in common-sense consciousness, the reality of the ordinary man, is the primary subject of investigation proper alike to metaphysic, to theory of knowledge, and to abstract psychology. To common-sense perception it appears complete in itself. All the aspects it assumes over and above the bare perception of "common sense" are attributed to the individual mind apprehending it, and are not supposed to reside in the object itself. Such aspects at once assume the form, therefore, of psychological additions. This distinction, good and useful as it is from the standpoint of common sense, largely loses its justification from that of philosophy as understood by Modern Idealism. But in any case the distinction between what is below the level of minimum common-sense consciousness and what is above it certainly obtains, and is valid even though not amounting to a separation or distinction in kind. The true distinction between conscious experience in its lowest and barest form-to wit: the world as ordinary common-sense perception—and higher forms is that in analysing the former we are confronted with mere elements. whereas in analysing any more concrete department or object above the primitive conscious synthesis the elements into which we analyse it are not merely elements, but are themselves otherwise viewed concrete wholes. As Aristotle pointed out, that

which is at one stage of experience a synthesis of matter and form assumes the rôle of bare matter regarded as element in a higher stage, though in itself it remains none the less a real synthesis.

The specially psychological superstructure which in its later developments becomes Consciousness in its higher scientific or philosophic aspects is, at least in its elementary stages, closely interwoven with the mere consciousness of common-sense perception. A familiar illustration may be taken from the difference between the aspect of a town on first entering it (common-sense consciousness) and after we have resided there for a length of time, and have become familiar with it (psychological addition to sense-perception). After residence in it the streets of the town are no longer the same to us as they were at the beginning of our sojourn. In other words, the individual psychological consciousness has modified the raw material of the original common-sense consciousness. The whole of what is termed the higher consciousness, the æsthetic, the ethical, and even philosophical, although based on the original common-sense consciousness, implies a modification of the latter, increasing in its higher phases to a complete transformation of its primitive basis. The intellectual side of the higher consciousness is concerned with the transformation of the reality of ordinary perception into the scientific or philosophical "value" we term Truth. The æsthetic side is concerned primarily not with logical values, but with the alogical values of a consciousness dominated by feeling or immediate apprehension, which we term, in general, Beauty. The ethical consciousness again has to do with values as regards social relations and has as its standard what is termed "Goodness" —that is, a principle of conduct which has as its aim the negation of the opposition between the interest of the individual as a separate entity and the community into which he enters.

The higher consciousness, though starting from the consciousness of common sense, nevertheless, as already said, transforms the Reality of common-sense perception into values which give it a new meaning having a new reality of its own. The problem of the higher consciousness, concerned as it is specially with values rather than with facts or (except in science or philosophy) with abstract relations, has always been to disengage the quantitative particular, the mere many-ness of the world, from the essence of its reality. This is the real sense of human culture in all its three great branches—philosophic, æsthetic, and ethical - notwithstanding that the value of each is different. Philosophy and science strive to accomplish its aforesaid aim by the reduction of the world's many-ness to the unity of abstract thought; art, to the unity of potentiated feeling (æsthetic emotion); a similar aim appears in the practical department of human-culture - namely, ethics. The goal here is the reduction of the many-ness of particular, independent, contradictory human interests, to the universal common interests of humanity. Here also, therefore, the problem is the disengaging of the aim of human conduct from the quantitative particularity of countless individual aims and its reduction to the unity of a common standard. As already said, the general term for the specific value of philosophy (and science) is comprehended under the term Truth; for value in art or æsthetics the most general term is Beauty, understanding thereby the object of æsthetic emotion generally; in conscience or ethics such specific value is covered in general by the term Goodness.

But all these three specific values for the higher consciousness may be resumed under the phrase Harmony—that is, self-consistency or satisfaction within the synthesis of the higher consciousness. It may be observed that even the respective terms used for the three values above mentioned may be interchanged. Thus we often speak of truth in art or goodness in art, when to be strictly accurate the most adequate expression would be Beauty. Again, we often hear the expression "beauty of moral character," when the more correct phrase would be goodness. But the interchangeable usage of these terms in this connection may be excused or even justified when we consider that they are all three resolvable into Harmony or adequate achievement of end within the synthesis of the higher

consciousness in the sense of Plato's 'Aγαθόν. This is the undoubted common ground uniting our old friends " le vrai, le beau et le bien," and constituting them into a true trinity in unity.

And now let me be permitted a word on the significance of that much abused expression and its corresponding notion—to wit: the Absolute. Among the données common to all systematic thinkers of the present day, outside the "new realist" school, the principal is the conception of Reality as connoting a complete synthesis. This again, as commonly interpreted, culminates in the conception of the Absolute as final expression of content of all kind. Such is the position, as I take it, of the late Bernard Bosanquet, of Professor Pringle-Pattison and of most present-day thinkers of the Academic School. stated by them, it is, I think, substantially identical with what I term Panlogism, and as such it is obnoxious to the criticism contained in my book The Real, the Rational, and the Alogical, and also to that of Bergson and his followers. The Absolute of the Academic thinkers in question is undoubtedly au fond the hypostatized form of Thought or the Concept as we find it in varied modifications from Plato to Hegel. Like all Panlogists, these thinkers will have nothing to do with the notion of the Pure Subject (in contradiction, of course, to the individual Ego as empirical fact). Thus Professor Pringle-Pattison : "It was the substantiation of the logical form of consciousness . . . which led to the idea of the universal subject which thinks in all thinkers." The writer goes on to object to this "unification of consciousness in a single self" as he terms it.

To the above it may be replied that the primal Subject of all consciousness, the Ego as first principle, does not mean, as Professor Pringle-Pattison asserts, "the substantiation of the logical form of consciousness," but, on the contrary, is a recognition of the Alogical matter as the basis of "consciousness-ingeneral" (Bewusstsein überhaupt). It is strange that though, like the other exponents of his school, objecting to this "unification of consciousness in a single self," Professor Pringle-Pattison is insistent on the Absolute being regarded as a

self-contained experience, at once the primal postulate and final result of philosophic thought. But these thinkers nowhere explain how they arrive at an all-embracing whole of experience without a that which experiences, i.e. the experiencing centre of the whole—or, otherwise put, the common Subject of this complete experience. We surely have here a circumference without a centre. It is an experience which, so to say, hangs in mid-air. Now, of such experience I contend we can have no possible notion.

If the word "experience" or "consciousness" is to retain any meaning at all, it can only be that of the modification of an experiencing Subject. Hence, granting their assumption of the Absolute as the self-contained and completed totality of all experience (an assumption which, for other reasons, I cannot accept), it could only be related to us finite conscious foci in so far as it is identical with ourselves as experiencing—in short, with the ultimate Subject of our conscious life. To retain the Absolute as universal consciousness, while denying it as universal Subject of consciousness, is surely in effect a contradictio in adjecto. If conscious experience is in the last resort one, then its Subject must necessarily be one. The present writer would reverse this procedure of our academic metaphysicians. Abandoning the notion of completeness or wholeness in the Absolute, he would treat the latter not as finished experience in itself, but rather as the eternal principle of experiencing or knowing-that is, as being the eternal Subject of all concrete consciousness whatever. This problem is crucial for a constructive metaphysic. Are we to postulate the Absolute as a definite, so to say, wound-up, sum-total of all reality, transmuted or otherwise, or are we to think of it as an eternally completing yet never complete process of the self-realization of the ultimate Subject of our consciousness and of all possible consciousness? Here we have the true issue. If we regard the Absolute as in the last resort a statically complete synthesis, we necessarily have a dualism, since it resolves itself into a somewhat, not as a basis of, but as over against, our present consciousness. The Absolute, so far from being the unchangeable eternal, is, on the

contrary, for me, the eternal principle of change. It is eternally realizing itself under ever new forms to which we can assign no finality. Viewed, if we will, time apart (sub specie eternitatis), it is surely, as far as metaphysical analysis is concerned, a bare principle and no more. But this question as to the ultimateness of time—as to the validity of the introduction of time-considerations into the deeper problems of metaphysics—is a problem in itself.

The question is, can we eliminate Time as a mode of the Absolute? M. Bergson apparently would say emphatically No. The writers just criticized would say as emphatically Yes. M. Bergson's durée is in fact difficult to distinguish in his writings from the Absolute itself. On the other hand, the complete elimination of time from the Absolute would seem to land us in the hopeless impasse of Panlogism. One recalls in this connection the remark attributed to the late Professor Sidgwick when he was dying: "I have never been able to understand the relation of Time to the Absolute!" Time would seem the inseparable condition of the Alogical side of Reality. such, the Alogical, as we have endeavoured to show, being the basis of all reality considered as determination of consciousness, it is difficult to envisage the Absolute otherwise than as in some way directly involving, or, shall we say, giving birth to, time-(M. Bergson's durée).

As already stated, for my part, while getting rid of the idea of completeness or wholeness in the Absolute, I would treat it, not as in itself a finished and exhausted experience, but rather as the eternal principle of experiencing or knowing, or, in other words, as the eternal Subject of all consciousness. This problem of constructive metaphysic I cannot but regard as crucial for the immediate future of serious philosophic thought. Are we to conceive the Absolute—I must repeat the question—as a definite sum-total of all reality "transmuted" or not, or shall we think of it as an endless completing yet never completed process of realization of the Subject at the root of our consciousness as of all possible consciousness? Turn the matter as we may, there can be no whole in the content of Time any more than in the form of time, and yet the Absolute admit-

tedly unfolds itself in infinite Time. All things considered, Schopenhauer's "Will," while doubtless open to criticism, is perhaps a better expression for the Absolute than any other single word. It seems to indicate that the will-striving, the urge of life, or the evolutionary process, is never lost in the full fruition to which, nevertheless, notwithstanding Schopenhauer, it unceasingly approximates. The conclusion arrived at by the famous pessimist is, as a very little consideration will show, quite unessential to the metaphysical formula itself. It should be recognized that in deprecating the attempt to conceive the Absolute as involving a static completeness of actual perfection, and in contenting ourselves with its postulation as potential merely, treating perfection, all-embracing Harmony, etc., as for us simply asymptotic tendencies, we are accounting for all that with which the analysis of our conscious experience can furnish us. What lies beyond belongs to the region of the unknown. Its consistent statement even, let alone its solution, is unattainable in the formulæ of reflective thought. We here neither affirm nor deny the possibilities of its solution in terms of the æsthetic or ethical consciousness. We merely maintain the invalidity of any other view than that given, either as postulate or result of philosophical analysis itself.

The foregoing considerations naturally lead us up to the question of the meaning and character of human destiny as implied in the process of social evolution. From the period when civilization began to break down the primitive group society of early man the tendency of human thought-aspiration has been in the direction of what may be termed the mystical ideal, which has seen the telos of human existence in a direct relation between the finite soul of the individual and the infinite world-consciousness. The evolution of this notion has passed through many stages between the crude animism of primitive man and the visions and half-inarticulate conceptions of the full-blown mystic of the later period of antiquity and of the Middle Ages. But the direction has been there all the time from the earlier periods, and may be traced in the mystery-

cults of India and of the already decaying ancient world of the Græco-Roman period before its definite formulation by the Neoplatonic thinkers, and later in the esoteric forms of the Christian religion. The mystical tendency spoken of manifests itself in the department of ethics, as what I have termed the "introspective morality" for which the standard of conduct does not imply a reference to social welfare or happiness, or if it does, only does so indirectly, in the last resort basing itself not upon the individual in his capacity as part of a corporate social entity, but as standing in a special relation to a Divinity with whom he has a direct inner connection as "a searcher of hearts." The ultimate standard of conduct is the God supposed to be revealed to the inner consciousness of the individual personality. The supreme end of life for early man, on the other hand, had nothing to do with a personal relation of the individual to any author or soul of the universe, but presented itself socially as the glory of clan, tribe, or people thought of as a continuity of deified ancestors, living tribesmen, and their descendants. The individual member of the social group had. as such, little significance in himself. His importance consisted mainly in his relation to the social Whole. Accordingly his ethical standard of conduct as a rule was exclusively social. concerning the life and welfare of his group-society and his attitude towards it.

What we have called the mystical religious ideal has, together with its introspective ethical standard, more or less dominated the serious thought of the later periods of civilization. In our day, however, we find another and a different notion of human destiny gradually supplanting the one in question with its introspective individualism. This newer conception of human destiny and the ethical standard based upon it, is, in a sense, a reversion on a higher plane—a reversion with an enormous difference of course—to the naïve attitude of primitive man in the matter.

Early society itself constituted the highest end of life to the individual members constituting it, a view gradually supplanted by the notion of a spiritual side of the individual in direct relation

to a more or less mystical God. The growing modern view spoken of, on the other hand, reverts in a manner to the early view of society and its welfare as the ultimate standard and telos of individual personality. This to me seems to indicate a real advance. The ultimate barrenness of the older introspective attitude, with its cardinal doctrine of the direct rapport between the individual soul and the world-principle (whether personified or not) as the salient feature of human life in its relation to the telos of Reality, is written on the history and present fortunes of this line of thought. The traditional religious systems embodying it are, one and all, tending to become crystallized, and to lapse consciously or unconsciously into mere politico-economical agencies for the maintainance of the status quo, while with some of those who attempt to galvanize them, the old standpoint is explained away in accordance with the newer attitude of thought in these matters. Thus the social side of Christianity generally, especially in the alleged teachings of Jesus, is deliberately exaggerated, and introspective precepts, presented with a social colouring which there is every reason to believe did not originally belong to them.

Unlike the mystical attitude with its introspective ethics, the newer view spoken of does not claim to state the ultimate world-purpose within the limits of any formula. Its Ideals have not the hall-mark of finality attaching to them. Once attained they are seen to lead to something beyond themselves, which something cannot be foreseen save in the vaguest outline. Thus he for whom Socialism is the ideal will, if he is a clear thinker, recognize that any form of Socialism he can envisage, though it may be an end for the present generation, is in itself but the opening of possibilities beyond itself. Nevertheless, as I have pointed out elsewhere, happiness, if not per se a concrete ideal or the telos itself, is at least so per aliud, i.e. it must necessarily enter as integral element into any possible ideal. Now, happiness to endure as happiness we have seen cannot be a finality, it cannot be a something fixed once for all and unchanging. What applies to happiness as element of the telos, applies also to the telos itself viewed as concrete, and to the

Absolute, of which it may be conceived as the highest expression. Pursuing the above line of thought, the question arises as to whether we can arrive at any formulation of the summum bonum as the telos of the process of Experience or Reality. Our whole discussion, I think, shows we cannot. We have already pointed out the fallacy into which all our theorizing has hitherto been apt to fall; i.e. hypostatization of one side of an antithesis, which side by itself and out of relation to its correlate, is but an abstraction. Pleasure or happiness viewed per se is an unrealized abstraction. As such, i.e. as an abstraction, it cannot become a telos of Experience, but only as entering into a concrete synthesis involving elements other than itself. Thus we see in every-day life that the man who attains happiness does so by postulating his end in life as something irrespective of happiness or pleasure which seems to enter it merely as incidental to it.

We find thus the same principle here in this question of Reality considered as end-value that presents itself in our analysis of the other departments of reality. Reality we have found as such always presents itself as involving at least two antithetic elements and their reciprocal connection, the elimination of either of which leaves us with an abstraction and no Reality, and which abstraction, when closely viewed, evinces itself as practically meaningless; "the light that never was on land or sea," a light without darkness, which would indeed be a light that was indistinguishable from darkness. A good which had completely absorbed evil, and with which no evil was to be contrasted, could not enter into consciousness as a real good. A God "too pure to look upon iniquity" would be a caput mortuum no better than a "bloodless category." A beauty with no shadow of ugliness, actual or potential, to set it off would not enter into any conscious synthesis as beauty. Similarly, an absolute truth out of all relation to falsehood or error would be a colourless and worthless platitude, and would forfeit its higher character of truth in any intelligible sense. I Most of our Ideals are, at least as traditionally presented, little more than hypostatized abstractions.

¹ See The Real, the Rational, and the Alogical, pp. 73-74.

In discussing the nature and conditions of the supreme end of life and a fortiori of Reality itself we are confronted with the rival theories of Optimism and Pessimism. Here also the foregoing remarks have their significance. The Optimist, if he is thorough-going, contends that Human destiny involves the ultimate realization of complete perfection. In so far as this is the case he renders his position obnoxious to the above criticism. On the other hand, the Pessimist is equally and perhaps more one-sided in his denunciation of life as regards value. Though we fully recognize that mere abstract happiness, albeit it does not by itself constitute any telos, yet undoubtedly enters as necessary element into every telos, and therefore affords us a touchstone by which we may guess the value of any telos, proximate or ultimate. Now, the Pessimist contends that the sum of misery in the world not merely outweighs the actual sum of happiness, but tends to do so in an increasing ratio. But it should be noted here that even if we concede this assumption in itself, as an argument it involves three questions which are begged. (1) It is assumed that happiness and misery can be stated in the form of a hedonic calculus, and that the question can be treated indeed adequately from standpoint alone. (2) That the problem can be formulated in terms of individual feeling as though the individual were exclusively concerned therein. (3) Human evolution during the historical period, a period during which civilization has been developing from its beginning to the present time, is assumed as the absolute Norm for all further developments. Now, with regard to the first point mentioned, happiness is regarded abstractly as per se an independent Reality rather than the element of a synthesis. It is regarded as a somewhat fixed once and for all, whereas as realized happiness is continually subject to change as regards quality, this being determined by the general content of the synthesis into which it enters. It is a common observation that the animal cravings, which constitute the lowest form of happiness, once satisfied, are normally succeeded by a craving for a happiness involved in the satisfaction of the higher interests.

With regard to this distinction of quality in happiness, the conviction we have, that what we term the higher interests are higher, namely, nearer the assumed ultimate telos of consciousness than the lower, and their happiness correspondingly higher, seems to be an ultimate postulate, i.e. an assumption involved in the last resort in the self-consistency of consciousness. the element of happiness or pleasure runs through all momenta of the life-process, no concrete end can be conceived as such in which it is not included. The second fallacy referred to is based on the assumption that the organic individual, the particular human being as unit, is the sole and ultimate natural form in which self-consciousness may be embodied. Now, this is a pure assumption, and I have ventured to suggest a speculation based on the trend of evolution in the past as to the possibility of a new social persona emerging in the fullness of time, having for constituent basis the individual personality, just as the latter has for basis the cell as constituent of his animal (human) body. The third of the points mentioned is the assumption of the Pessimist that progress, or, if you will, change, must proceed in the future on exactly the same lines as in the past, and that seeing that hitherto different periods of historic development have seemed to show rather a shifting in the distribution of happiness and misery than alteration in their relative amount, so it must be in the future. For this assumption, founded as it is on the short period of civilization and history, short that is as compared with that of the existence of man on this earth, we have, I submit, no warrant whatever. It may well be that the period of development of civilization throughout all its stages can only be properly judged by that which succeeds civilization, and this may show us quite different results and a quite different trend from that which the known past exhibits.

The antithesis of good and evil, in general including happiness and its reverse, seems one of those ultimate oppositions lying deep down in the nature of Reality which cannot be transcended in itself. But admitting this does not alter the fact that the evil as particularized in the concrete, i.e. as realized as "this

¹ See The Real, the Rational, and the Alogical, pp. 110-117.

evil thing," must necessarily pass away, perishing no less than arising being inseparable from the world of particulars which form the time-content.1 The term "good" means any content of consciousness that suggests or makes for the ultimate telos of life of which pleasure or happiness is an essential element. All pleasure or happiness is good in the abstract and per se, but not necessarily in the synthesis including other elements than itself. It is the whole in which it is realized that determines the true value of happiness, and therewith the question of preference as embodied in the old query anent the hog happy and Socrates miserable. We said above that evil as particularized must necessarily pass away as being a part of the time-content, but the same remark also with equal necessity applies to the "good" when realized as part of the time-content. All particularized good is therefore in a way no less transitory than particularized evil, but this does not necessarily imply, as might seem at first sight, merely a perpetual see-saw of Ormuzd and Ahriman. For though concrete good and concrete evil may in themselves be equally transient, yet as elements of the time-process in its general movement there is a difference. In the dialectic of this movement the concrete evil appears as the first term of any process of evolution, the good, on the other hand, acquired by elimination or transformation of this evil evinces itself as the End or fulfilment of the cycle in question. This is the principle of progress. It means that a "point" is always realized on the side of the good in the sense that all concrete evil issues in a concrete good and not conversely. Thus the trend of all evolution is towards the "good," notwithstanding that we cannot conceive "good" in general ever exhausting all possibility of "evil" in general. The potentiality of "evil" as of "good" always remains. It is undeniable also that out of the very realized good itself, which has overcome the precedent evil, a new and different evil may arise which in its turn has to be transformed or eliminated by a new Ideal issuing in the manifestation of a new realized "good." Hence the tendency of evolution is always in favour of the good, though the tendency

See The Real, the Rational, and the Alogical, pp. 183-185.

may never reach its goal in the final conquest of evil, i.e. evil as potential or as general principle. The good then would appear as never reaching "full" fruition, notwithstanding its eternal approach thereto.

The foregoing is fully in accordance with the principle elaborated in connection with the theory of Knowledge in its metaphysical aspect and otherwise. The principle enunciated from a metaphysical viewpoint in the abstract applies mutatis mutandis throughout the whole range of conscious Reality. Every department shows us a pair of alogical antitheses realized in a synthesis by the formal logical activity of thought. reflective thought, the abstract thought of psychology, we have seen the alogical element of consciousness-in-general never This is the basis in psychology, of its radical distinction between subjective and objective. In the object, i.e. the determination of consciousness in its "first intention" (to employ the old scholastic phrase), the alogical element enters directly, while in the consciousness of reflection it can only be indicated indirectly by means of a conceptual symbol. This is the crucial distinction between the mental or ideal (in the psychological sense) and the real-between Reality as immediately given and its reflection in the individual mind. It is hence the basis of all abstract thought whatever.

I have already pointed out that there is no side of our conscious experience that is exclusively alogical, or exclusively potential, or exclusively actual. But the fact remains that there are some sides which are predominantly alogical in their character and others which are predominantly logical, or again, as we may formulate the matter in the present connection, some in which potentiality is predominant and others in which actuality is the leading element. Speaking generally, we say that in reality as apprehended immediately, i.e. in reality as experience given, the alogical element by a long way outbalances the logical. In all that concerns life, organic, animal, or social, it is the alogical in the sense of the potential which is of importance, the actual is quite subordinate. This point has been abundantly emphasized in other terms in the philosophy

of Henri Bergson. In fact it is not too much to say that while in all first-hand reality the alogical in some sense is dominant, that life as life is alogical (in the sense of potential) par excellence. It is not any given actual moment in life, but its ceaseless becoming, its infinite possibility, which is its essential point and gives to it its character and value.

On the other hand, in all knowledge as knowledge, it is the logical with which almost exclusively we have to do. Knowledge is concerned almost entirely with what I have elsewhere termed the frozen actuality of logical generalization with its concept forms. Its aim and end is not reality or life with its ceaseless becoming, but logical completeness and coherence. Its material is not Sensibility, Will or Feeling, in a word the Alogical, but thought-forms and their relative articulation. Knowledge which is not directly perceptive or equivalent to experience immediately apprehended, but knowledge as the highest result of the function of reflective thought, is never identifiable with reality. Reflective thought interprets reality in its own medium, and in so doing transforms it into something other than its original self. In itself reality is, as we have seen, predominantly alogical. As transformed by reflective thought into knowledge or truth it has become predominantly logical.

We have to give up as far as philosophy is concerned the notion of finality. The idea of infinity based on the alogical side of our consciousness gives us our only clue to the Reality we have been endeavouring to analyse. Many cosmological theorists have made shipwreck on their unwillingness to recognize the notion of infinity. Herbert Spencer, for instance, seems to conceive the evolutionary process of the material universe as change in a determinate quantum of matter in motion, this system of change having a definite beginning and a definite ending in time and occupying definite position in space. The necessary conclusion from Spencer's utterances is that though the successive steps of the evolutionary process may take untold æons to accomplish themselves-since Spencer regards evolution as a process starting and finishing and followed similarly by the contrary process, that of dissolution—we are

bound to postulate a never-ending recurrence of the same evolutionary cycle. This banal result of Spencer's cosmological theory is only to be got rid of on the hypothesis of the infinity in space of such world systems as ours. On this assumption the evolutionary process will not simply repeat itself but will always be modified by systems outside itself, just as within our own cosmic system the evolution of individual objects, be they suns, planets, animal bodies, or what not, is determined by objects outside themselves and ultimately by the whole cosmic system of which they form part.

In the foregoing I have merely attempted to give a bare sketch, in its fundamental points, of what analysis discloses of the inner process and the inner meaning of that consciousness which is the raw material of the system of its determinations we call Reality.

I will conclude by quoting the final paragraph of The Real, the Rational, and the Alogical (p. 244).

"If there be one thing that we must learn to give up, it is the notion of finality. Yet eternal process can never be formulated in thought. It can be dimly apprehended in feeling, that is all. The notion of direction, of tendency, must take the place of actualization. Full realization is not for us, even as ideal, in that stadium of consciousness in which we, finite individuals, with an animal body basis, live and move and have our being. The suggestions given us by our higher consciousness with its ideal values of a 'something beyond' must for us ever remain merely glimpses of possibilities, passing echoes, indicating direction. This should never seduce us into futile attempts at a dogmatic construction of the nature of the final goal of all things. So far as this goal is concerned, for us at least, beyond these passing echoes, 'the rest is silence.'"

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IMAGINISM

By DOUGLAS FAWCETT

Born 1866. Educated at Newton College, Devon, and Westminster School.

BIOGRAPHICAL

I was born at Hove, Brighton, April 11, 1866. My parents were E. B. Fawcett, a "Fawcett of Scaleby," the Cambridge and All-England clicketer, and Myra, daughter of Colonel Macdougall, of the Indian Army. I was educated at Newton College, Devon, and Westminster School (Queen's Scholar). In 1896 I married my cousin, M. B. V. Jackson, and have lived since mostly in Switzer-My philosophical career dates, I suppose, from talks about Berkeley with two Westminster boys—the eldest fourteen or fifteen years old—one of whom is now a distinguished Oxford professor. But I was not stirred seriously till the age of seventeen when, on my father's decease, I happened on Louis Figuier's well-known Day After Death. This book defends belief in the plurality of lives: the attractive, but so far unverified, hypothesis shared by Orphism, Plato, Plotinus, Drossbach, Schopenhauer, Pezzani, Professsor McTaggart, Dr. Schiller, and many others, and upheld so stoutly by French "re-incarnationists," and the theosophists and kindred mystics whose doctrines derive from the East. The problem of life became interesting, and I began a long course of self-education in science and philosophy. In philosophy Plotinus, Leibniz, Hume, Kant, Fichte, Schelling, Hegel, Schopenhauer, Herbart, Lotze, Mill, Bain, Martineau, James, Bradley, Schiller, and Western and Eastern mysticism all made effective appeal. Coming as a young man into touch with the theosophists and their "Indian wisdom," I was asked to revise the philosophy and science of Madame Blavatsky's Secret Doctrine, a syncretistic and fanciful work, but full of suggestion; a popular version or advance-guard, as it seemed, of an Eastern cult whose intellectuals were yet unborn. there dwelt here merely a "réligion manquée." Leaving the theosophists disillusioned, I wrote a monadology, Riddle of the Universe (Arnold, 1893), resembling what is now called "spiritual pluralism," on independent lines. The experiment, while educative, was unsatisfactory. There followed in 1909 Individual and Reality (Longmans), but time once more brought dissatisfaction. However, with World as Imagination (Macmillan, 1916) the beginnings of a satisfying world-hypothesis rose into view, and the long and tedious process of trial and error was to bear fruit. So radical was the change of standpoint that all preceding works and essays, etc., had to be withdrawn. In 1921 appeared Divine Imagining, and the series thus initiated is being continued to-day. The standpoint is now generally known under the name of "Imaginism."

IMAGINISM

- "God for His own joy sings many-voiced this world.
- "Time is but the lilt of His song and space the breadth of His harmony. Save in His art, they are not.
- "All the beings of the world are the words of His voice, all that is substance, energy, and mind, all men and grains of sand, all birds and beasts and trees, and all stars."

OLAF STAPLEDON, God the Artist.

"... our normal waking consciousness, rational consciousness, as we call it, is but one special type of consciousness, while all about it, parted from it by the filmiest of screens, there are potential forms of consciousness entirely different. We may go through life without suspecting their existence, but apply the requisite stimulus and at a touch they are there in all their completeness."

WILLIAM JAMES.

"We have to inquire whether imagination combined with consciousness may not be the same thing as memory, wit, power of discrimination, and perhaps even identical with understanding and Reason. Though logic is not capable of deciding whether a fundamental power actually exists, the idea of such a power is the problem involved in a systematic representation of such a multiplicity of powers."

KANT.

(Cited in Professor Norman Kemp Smith's Commentary, p. 474.)

NATURE, wrote the poet Blake, is imagination; in philosophy we can go further and think likewise about the universe. And in truth Imaginism, which asserts that the world-principle resembles the imagining with which we humans are acquainted directly, is now a live issue. In 1913 it was otherwise. Imagining, while interesting—though insufficiently so—to

psychologists, had then no standing in current metaphysics, was held to furnish no special clue to the solution of that most weighty of problems, the character of reality at large. Suggestions thrown out by a few thinkers and poets had been overlooked or forgotten. Idealists, the only men who care for this kind of clue, were still interested for the most part in the Greco-Hegelian tradition, as modified by partisans of the Hegelian Right and Left, and had in their opinion quite enough to do battling with the new realists and other critics. "All over Europe before the war academic lecture-rooms only re-echoed, in all essentials and with minor or minimal variations, four great substantive voices of antiquity, two of them Greek, Plato and Aristotle, two of them German, Kant and Hegel, and philosophy, instead of advancing with the steady sureness of a science, rehearsed only the old problems and the old debates. Nor was the situation materially different in America." I To-day, however, a hard-pressed Idealism may well reconsider her position and look around for an ally. Nor will she look in vain. Imagining, the mere "case of the association of ideas" of certain psychologists, the Cinderella, as it has been called, of philosophy, is acquiring or re-acquiring metaphysical status. It is discussed now as sampling for us the nature of the worldprinciple itself. And the debate, it would seem, merits attention. Professor J. S. Mackenzie finds in Imaginism promise of a complete final reconciliation of poetry, religion, and philosophy, and agrees that "imagination is the best name for that central activity by which the creative work may be supposed to be initiated and carried through."2 Professor Keightley, of Benares University, himself an imaginist, declares that there is no fighting alternative. He observes further that an unconscious imaginism is becoming very general, and descries this, for example, in the works of Professor Bergson and Dr. Whitehead.3 Professor Ségond of Lyons regards pure imagination as the necessary

Dr. Schiller in Mind, October 1917.

<sup>Hibbert Journal, January 1923, "The Idea of Creation."
In the Concept of Nature in particular. Bergson's "Principle of Life,"</sup>

In the Concept of Nature in particular. Bergson's "Principle of Life," as I have urged elsewhere, is a symbol referring us to Divine Imagining in its creative phases.

presupposition of finite experience. One must suppose then that the hypothesis meets a want and cannot be set aside. It is an experiment seasonable at any rate and emphasizing data that rival theories have overlooked. We have to inquire whether it, too, has overlooked regions of appearance and lacks accordingly harmonizing power and width: a question only to be answered in the course of a long and rigorous testing. Having stated precisely what we mean, we must court objections with gladness. And we have to look for Divine Imagining as active in all quarters respecting which we have knowledge. We must in part carefully infer this presence, but in part also we must be able to intuite it.

Is Imaginism a novel venture or just the revival of an old thesis, forgotten awhile? This is a minor issue; the question of importance is-does it work? However, distributors of "bibliographic information," as James would put it, are answered readily. For the information to be distributed on this head is somewhat meagre. Ignoring the genial utterances of poets, let us ask what philosophical thinkers have had to say. In ancient philosophy Imaginism does not occur. The Greeks are silent, while those great names. Plato and Aristotle, belong obviously to the cult of Reason which culminated in Hegel. Imaginism dawns late in modern philosophy, and the date is an obiter dictum of Kant's. Kant suggested that imagination may lie at the root of finite sentients, flowering also in their varied lives which include, of course, the psychologist's imagination, narrowly so-called.2 Kant's "fundamental power" re-

pp. 157-8.

A caution here. The Indian Adwaita Vedantist doctrine of Maya or illusion must not be confused with imaginist views of Nature and finite sentients. It allows only "practical reality" to the world of division and change, so Sankara, its leading interpreter, informs us. For Imaginism this world is as "real" as the most ardent modern realist declares it to The "cloud-capp'd towers, the gorgeous palaces" are part of the changeful flux established on Divine Imagining; realism and idealism not being at bottom opposed. The Maya doctrine is a verbal device. The difficulty was to account for a changing world which shows somehow within an alleged changeless Absolute. This was met by declaring that the world is only "practically" and not "really" real!

Cf. Divine Imagining, pp. 34-5, and Mind, vol. xxxi, N.S., No. 122,

mained a suggestion and nothing more. With Fichte, however. "productive imagination" is discussed further in connexion with the making of Nature and acquires thus what we may call cosmic standing. With Frohschammer, again, "Phantasie" is a cosmic agent, a condition of finite experience manifest in all Nature. But Frohschammer does not seem to allow for the creation of real novelty.1 And his "Phantasie" itself is, after all, only a power among powers, subsisting, e.g. along with God and the Ideas. It is not an all-explanatory world-principle whose protean forms all appearances alike serve to reveal. In World as Imagination I took the further step of discussing Imagining as this sole and all-inclusive world-principle. And the attempt to display this principle at work in Nature and finite sentient life constitutes my contribution to this attractive field of research. It is the old story. The innovator "does but gather in himself the incitations to will which he feels from a thousand sides; the only thing in him which is really new is the original synthesis." 2 Here, as elsewhere, conservation and creation, those two great aspects of an imaginal system, are found together. The conflict, now so formidable, of existing worldtheories, all alike unsatisfactory, opens the way for a new experiment-for what in the language, not of dialectic but, of the imaginal dynamic we call a novel "imaginal solution." 3 It matters very little what person voices an illuminating solution first. Truth, as Hegel says, appears when its time has come. What does matter is that the solution should not be left in the shape of a bald affirmation or paragraph, but that it should be tested by application to all quarters of appearance, natural and other. Those who desire it and will test it are the workers

Perhaps regarding it, like the late Professor Bosanquet (Logic, 2nd ed., ii, 249), as a "contradiction in terms." "Phantasie" does not seem so much to create as to convey. It is a mediating agent. Professor Lutoslawski informs me that a Polish writer, Karl Liebelt, was among the imaginists, but I am too ignorant of what he wrote to venture to assign him his place in this little group.

² Professor Aliotta, The Idealistic Reaction against Science, pp. 225-6. English Translation.

³ Cf. Logos, April 1923, "Hegelian Dialectic or the Imaginal Dynamic?" pp. 31-2.

who have toiled over prior experiments, weighed them in the balance and found them wanting, and who yet retain sufficient courage to fare further. Each of us tolerates toil only up to a point.

Philosophical truth is a conceptual scheme which serves in our thinking as substitute for the universe, and this substitute-scheme is a poor thing no doubt, while our own. We shall be wise not to expect too much of it; in fine, we must moderate our cosmic ambitions and recall that agnosticism is sometimes the better part of thinking. Thus we may come to agree that Divine Imagining is fundamental, that it and its continuing centres furnish the dynamic or "real dialectic" of creative evolution, that causation, including, of course, all cases of "physical" happenings, is imaginal process.2 We may even discuss the "initial stage" of this special worldsystem in which we live and move, may indicate how it fell into the stage of conflict, division, and change, and how it moves inevitably towards the final solution—the "imaginal solution" --of its conflicts in an harmonious Divine Event. But in doing so we glance at reality largely in the block. Although we may throw light on the standing of space-time, on creative evolution, on the origin and destiny of finite sentients and so forth, we shall avoid other once fashionable but quixotic enterprises and more especially that which would set before us the "eternal essence" of the Divine.3 It was the hope of Hegel, by detecting and interconnecting the wider categories, to name the main forms of this quintessence and to reveal with dialectical necessity how they cohere. And it was a vain hope. For, in the first place, the making of this inventory would concern not "categories" or thought-determinations, but rather forms of immediate imagining. Thought and truth are relative to an

There are those who reduce philosophy to the "clarification of thoughts" and despair of attaining true thoughts about the universe. I must simply say here that I regard this position as untenable.

^{*} Cf. "Hegelian Dialectic or the Imaginal Dynamic?" Logos, April

³ The reader will recall the Logic which was to exhibit God as He is in His eternal being before the creation of Nature and finite minds.

Other, never really ingested and overcome. And, in the second place, this world-system of ours may not be a satisfactory sample of the divine. There may exist innumerable, perhaps infinitely many, other world-systems displaying inexhaustively different relations and types. The variety native to Divine Imagining must surely take shape in these, in which case to want the inventory is to cry for the moon. In the third place, when we discuss eternal essence, we mean really, I suppose, by "eternal" not timeless, but enduring free from change. But, if so, the question arises whether, and if so in what sense, any essence is eternal at all. In a universe in which creation is primary, in a universe of imaginal content, eternally stable or permanent features may be comparatively rare. The "accomplished" Absolute of tradition, "complete, perfect and finished," is surely discredited. Hegel's Divine Idea conceived on the analogy of reason, fully rounded off, only "accomplishing itself" (since time-succession is unreal) from the standpoints of finite sentients, fails us. Divine Imagining, infinitely productive, remains and to this extent there obtains the enduring, the permanent. But within this world-principle, and even beyond it as it becomes incessantly and creatively what at this or that stage it was not, burgeons, and who shall say in what manner of measure, the new.

Thus it is wiser to regard reality largely in bulk, commenting on such of its comprised types, relations, and developments as we can. Elsewhere I have made an attempt to consider the "Initial Situation" of our particular world-system, that system whose scores of millions of suns impress the astronomer, that which is often by a surprising assumption mis-called the universe. The "Initial Situation" of this system is not a stirless heaven of forms, least of all of conceptual forms, a list of the kinds of which might reward patience. It is simply that concrete conservative phase which preceded creative evolution with its real history, time-succession, and novelty. No attempt was made to master its primitive content of relations and types. It was caught vaguely as it may have floated within

Divins Imagining, chap. vi, pp. 147-8.

Divine Imagining, a dimly descried, amazingly complex integral poem, of which only the general burthen can be caught and recorded by man. Much will begin and much also will cease during its history. Creation in an imaginal universe is primary; conservation (as Descartes saw) presupposes creation and is secondary. And most probably in the infinitude of Divine Imagining innumerable like insulated systems, all different from one another perhaps radically, are also the seats of histories, are changing magically and in all sorts of ways. Unable to grasp fully the system which gave us birth, we learn that even agnosticism has its uses; in taking thought of this possible host of systems we shall be dismayed and lean to silence. An improved simian, separated by some few thousands of years from "heliolithic culture" and capacities, can hardly hope to sound all the depths of Divine Imagining.

I return to fundamentals. Idealists, with whom we are chiefly concerned here, have mooted various sorts of world-principle, but the most famous and influential of their hypotheses has been that of Hegel. Hegel affirms, both in the Logic and in the much less abstract Philosophy of History, that Reason is "exclusively its own basis of existence," the "energy" and "sovereign" of the world. It passes into self-externality as Nature and closes with itself again as the Absolute Reason or Idea, as Spirit. It is complete, perfect, and finished, in a word "accomplished," but it shows to finite sentients as if it were in process of being accomplished. Nature and the sphere of Mind are "applied logic," human faculties are "specifications" of Reason, while the self-movement of the constituent notions or pulses of the logical Reason, pure or "applied," is dialectic. Deity is truth, and truth is the whole. It is strange

[&]quot;If . . . we consider Logic to be the system of the pure types of thought, we find that the other philosophical sciences, the Philosophy of Nature and the Philosophy of Mind, take the place, as it were, of an Applied Logic, and that Logic is the soul which animates them both. Their problem in that case is only to recognize the logical forms under the shapes they assume in Nature and Mind—shapes which are only a particular mode of expression for the forms of pure thought."—Hegel, cf. Wallace's Logic of Hegel, pp. 41-2.

^{*} Hegel: Wallace's Logic of Hegel, p. 39.

that no one seems to know whether Hegel meant this Divine Idea or Reason to be conscious or not, and that his followers are free to interpret him in this matter as they list. But, waiving this point, we have before us the original Hegelian message, pure and undefiled, and we can use it conveniently as a foil over against which to announce our own. message, of course, is largely ignored by his modern sympathizers and admirers. Thus the late Professor Bosanquet reduced Reason to a "nisus to unity" and Logic to the science of the "mental construction of reality" in the building of finite experience.² Similarly there has obtained a tendency to whittle down Hegel's dialectic, which is of cosmic scope, into a dynamic which marks the thinking of men (more especially philosophers) and social groups.3 Hegel becomes in this way a mere nominis umbra. It is needful, therefore, to assert clearly that we have the original, not the bowdlerized, Hegelian message in view.

Hegel's Absolute is "unaccomplished" only as contemplated from the standpoints of finite sentients. James called this kind of Absolute something to rest on and, again, the block-universe; and even writers like Belfort Bax, in sympathy with the Hegelian Left, declare against it, substituting for it an "eternal principle of change." 4 The Italian neo-idealists turn away from it and accent history. Nevertheless a renewed and gallant effort was made recently to defend this Absolute. Its static character was denied almost contemptuously; it was discussed, not as a block-universe but as a whole which is essentially "active." But with this pronouncement embarrassments begin. Activity, which is conservative or evépyeux

[·] Letter to the writer who had asked for the meaning he attached to the term. The definition seems an unhappy one. "Nisus" implies surely timelapse in which the unity comes after something else!

^{*} Essentials of Logic, pp. 4 ff. "Psychology treats of the course of ideas and feelings; Logic of the mental construction of reality."

³ Whereas for Hegel, an objective idealist, dialectic is a "universal and irresistible power" ruling on the cosmic scale as well as in "everything around us," including, e.g. a shower of rain or the moon's movements.

⁴ See his The Real, the Logical, and the Alogical.

akungias, allows the Absolute and its possessions simply to endure; the contents that are sustained actively show no addition or loss. A symphony, comprising all possible variations, persists; no novel melody rises or can rise into being. On the other hand, if activity is creative, real time-succession, in which alone novelty can emerge, is implied. Conservative activity, then, leaves the "accomplished" content on our hands; activity that is also creative introduces real time. But this is not all. In mobilizing the activity-notion absolutists must have a care. For, if their ally, F. H. Bradley, is right, the notion is a "mass of inconsistency"; and, as false appearance, cannot be affirmed of the Absolute. Incidentally, too, it implies "the change of something into something different "-happening and sequence in time-which absolutists, discussing ultimate reality, must reject. Thus the campaign in favour of the "active" whole, as against the block-universe, is unconvincing.

Do we desire now to escape (a) from the concept of the block-universe which still holds the field, and (b) from the further concept which identifies this block-universe with Reason? We can do so by supposing that the world-principle is (a) at once conservative and creative, and (b) that it resembles, at a distance, what is conscired as pure imagining in ourselves. I say "pure" imagining, since imaginal constructs which are used to represent other reality, which are thus under the control of this "other," have become, in virtue of their function, portions of instrumental conceptual thought. They belong thereby to the story of reason which opens in connexion with the needs of finite sentients adjusting themselves tentatively to surroundings in a divided world.

Man's imagining narrowly so-called, the imagining which interests a writer on psychology, is, of course, only a phase of his psychical life, one phase among the many in which the "fundamental power," or basic imagining suggested by Kant, seems to have flowered. But the "fundamental power" appears in this particular phase less transformed, less concealed

² Cf. Appearance and Reality, chap. viii, "Activity."

-like the lava stream beneath its slaggy surface-by products of creative evolution. The phase, as exemplified in memory, is conservative. A Turner, as we say, can evoke from the past even the rich fullness of a sunset. The phase is also, as innumerable experiences reveal, creative. The proprium quid of this creative imagination, observes Professor Ribot, its spontaneity, resembles instinct; a craving and power to create which constructs in the very heart of perception, takes shape in games and myths, and underlies all reasoning as well as industrial invention and art. Now the most "fundamental" of "powers," Cosmic Imagining, like the surface-phase most nearly resembling it in our psychical lives, can also be discussed as both conservative and creative. Let us add withal that in the deepest depths (as urged already), creation is primary. Conservation there, as in the case of the finite sentient, is recreation; there is no fixed precipitate of content and content relations which exists inertly and by itself. Conservation implies sustaining activity; to be is to be created or create or both. This has a bearing on a time-honoured controversy about "eternal connexions," in which some have descried the "logical" foundations of the universe. For "logical" it were better to read stable or conservative. Most "eternal verities" at any rate reduce to statements about conservative connexions that endure indefinitely; they hardly refer us to timeless relations which seem to be fictions of the study.

Reality cannot be thought of apart from time, which, let us be careful to note, covers duration and simultaneity as well as succession. A conservative Divine Imagining would resemble the traditional "accomplished" Absolute in that the contents present to it would not change. (An Absolute with changing contents changes itself and accepts history.) But these contents would be actively sustained or endure, and their differences, stably compresent, would be simultaneous. Thus duration and simultaneity cannot be suppressed even within a conservative Absolute. What do we posit as the sustaining activity? We say that the world-principle is conscious—in a word, that

activity is no other than consciring. So far from being a "neutral light," consciring is the active Divine Imagining. Given this consciring, to which contents or conscita are present, we understand at once on what duration and simultaneity depend. Simultaneity, as between events datable by different finite observers, has aspects which puzzle physicists, but in the present regard the concept is as simple as that of sensible simultaneity to the plain man who sees.

And succession? Its standing is not far to seek. Divine Imagining, in virtue of its eternal character (we can hardly be sure that anything else endures for ever) is actively creative. Creation is primary. There can be no fixedly determinate contents for imagining: and time-succession is just the form in which additive creation occurs. Why does time-succession with its novelty enter our experience at all? Professor Taylor considers it as perhaps an insoluble problem why time-succession should be a feature of this experience. And if Hegel's or Bosanquet's Absolute is to be accepted, I agree. If, on the other hand, Divine Imagining is the world-principle, the insoluble problem disappears. If Divine Imagining is real, its mode of manifesting its reality—the Form of Creation—is real as well! Indeed, time-succession is among the greater experiences by which our Imaginism is to be verified. Given the initial hypothesis, time-succession is precisely what deduction would derive from it, and precisely what we find actually given when the said deduction has to be tested.2

"If time is not unreal, I admit that our Absolute is a delusion," writes Bradley. But if it is real, as modern realists hold in agreement with so many idealists, and certainly common sense, then surely our hypothesis must be very seriously weighed? The world-principle seems to be revealing itself in the very world which it creates. What more do you want, or wanting can get?

See Divine Imagining, Foreword, xxvii, xxviii and chap. iv. Divine Consciring is Fichte's "infinite activity" regarded as also aware of its conscita or contents; the "conscious energy of the universe, that which at once conserves, creates, and grasps together all contents"; the active aspect, in short, of Divine Imagining.

Divine Imagining, pp. 108-10.

Activity (consciring) without change would be the activity of conservation by which the enduring and the simultaneous exist: the ἐνέργεια ἀκινησίας which Dr. Schiller has stressed so forcibly. Activity with change yields time-succession—creative evolution. Something like this view stirred Plotinus when he wrote that time is "the activity of an eternal soul, not turned towards itself nor within itself, but exercised in creation and generation." Are we to be obsessed by the "accomplished" Absolute of India, Greece, and Germany, when a natural solution of the time riddle, almost self-evident, is within our reach?

Primary space-time features obtain within Divine Imagining: and elsewhere I have sought to discuss how they belong to our particular world-system, both as it pre-existed to, and after it had fallen into, creative evolution.2 We must not, with Professor Alexander, promote space-time to the position of a world-principle; these mere manners of appearance of contents cannot be exhaustive of the wealth of primitive contents; are too bloodless to draw upon for the filling of a world. Nor, again, must we allow scientific relativity to disturb us. There is nothing metaphysically startling in the relativists' search for more exact physical concepts, and nothing of course new to metaphysics (though probably to many men of science) in the discrediting of absolute space and time. The liberal mathematical physicist is aware of his limitations. The "empty shell" of physics, as Professor Eddington calls it, concerns knowledge at most of structural form, while "all through the physical world runs that unknown content which must surely be of the stuff of consciousness." 3 When we get clear of the "empty shell" and explore in thought this psychical "stuff" of Nature, we reach at last space-time-contents as they are present to Divine Imagining. And there, indeed, is the domain to which the relativistic experiences of all sorts of finite perci-

Riddles of the Sphinx.

Divine Imagining, chap. ix, "The Evolution of Nature."

³ Space, Time, and Gravitation, p. 200.

pients belong in unity. If, in view of the extreme complexity of this domain, we are at first staggered, we do well to remember this. The defects and helplessness of mere human b ings concern only themselves. The world is inevitably complicated, and does not exist merely to be understood easily.

The space aspect of space-time has been modified, if not produced, during creative evolution and stands, perchance, for one of the first great novelties in the imaginal dynamic.² But I must fare forward.

Ought the world-principle to be described as "reason," "thinking," or "thought"? For Hegel Deity, the rational Self-thinking Idea, was equated with truth—"the truth is the whole." And certain critics of Imaginism have urged that our Imagining also is just a form of thinking, and that the expression Divine Imagining proclaims loudly that the world-principle thinks. But this objection rests on a misapprehension. Divine Imagining is reality rather than truth; the thinking, which has as its aim truth, and which is, of course, indispensable to finite sentients, presupposes a relation which, on the level of the world-principle, cannot obtain.

We think, when checked by an obstacle, we are trying to bring to pass some practical result or, again, to fight our way to true theoretical knowledge: knowledge, be it noted, which is always representative, always of or about something other than itself. There is no truth which does not presuppose a relation. In his *Meaning of Truth* (p. 98) James notes this, but urges, it seems, too narrowly that the relation obtains only within the private mind. "Theoretical truth thus dwells within the mind, being the accord of some of its processes and

disintegrates the universe into individual time-systems, estimated primarily from bases within themselves, and entirely relative in their character when determined ab extra; but . . . when the matter is pressed home it seems evident (such I take to be Professor Alexander's conclusion) that a common world is implied in which the worlds of the two [all possible] sets of observers are unified." "The world is a unity of movements, but not a single movement."—Bosanquet, Meeting of Extremes in Contemporary Philosophy, p. 151.

Divine Imagining, pp. 200-1.

something animating them that is not understood, that is the work of that complex operation, the constructive imagination." Thought arises, writes Dewey similarly, in a situation of conflict which checks response; a conflict of habit with habit or of habit with surroundings. Thought, experimenting imaginatively with different lines of action, opens the way to adjustment. Logic-historically it was evoked by eristics-supervenes when the imaginal experiments, issuing in too many conflicts and blunders, give rise to the need for policing this treacherous reason as much as possible. Creative developments, in which practice may be quite ignored, come late. A consideration, relevant to important discussions, deserves mention here. is possible that there exist conservative connexions which can be used as premises and called axiomatic logical principles, but their claim to be called "logical" would, if we are right, depend on their adoption and utilization in the process of reasoning. In themselves they are merely stable aspects of reality, and have no bearing on the greater problems of first philosophy.

The higher thinking or reasoning presupposes the decreelet there be imaginative representation with its substitutefacts. It is a flat, bloodless symbolizing which often disgusts even the suffering thinker himself. And its achievements, notoriously fallible, require, even such as they are, much helping In fact, to know of things by concepts is a precarious business rendered possible, one may say, only by language. "Thinking—as a permanent activity at least—it may be fairly said, owes its origin to the acquisition of speech." " Such an analysis of a particular object as is required for its description would be impossible without language." 2 "What is called thought consists mainly (though I think not wholly) of inner speech."3 It is with no regret that we have to regard the world-principle as standing above this speech-propped makeshift: a device by which creative evolution meets the rude needs of our cognitive and practical life. In Divine Imagining all

¹ James Ward: Psychological Principles, p. 286.

Professor Stout: Analytic Psychology, ii, p. 178.

Russell: Analysis of the Human Mind, p. 152.

that the makeshift carries would be present and indefinitely more which thought's narrow selectivity and partiality condemn it fatally to exclude. No one once free of that ocean would seek the swamps of thinking again.

Imagining, Kant's fundamental power, certainly underlies the sphere of our "free constructive thinking," though it takes form there in the familiar concept. Indeed, as Professor Ribot writes: "It penetrates every part of our life whether individual or collective, speculative or practical—it is everywhere," as on the lines of Imaginism we should expect it to be. But note that it shows sometimes in a salient and specially instructive way. Take the domain of that "logical imagination" on which Mr. Bertrand Russell rests pure mathematics. When the method of ordinary rational thinking fails and we are brought to a halt and marking time, "direct philosophic vision," which is often necessary, may be enjoyed.2 This "vision" may convey discovery or creation; reveal existent connexions in the world-imagining or be the place of birth of something new; the point of main interest is that it comes to, and does not originate from, the thinking. Intuitive imagining, shall we say, has shone clear momentarily through the veil of concepts.

I have urged that our higher thinking is bloodless; it is contrived with an economy of content so strict to be almost forbidding and, failing the crutches of language, could hardly move. Hence we note that J. M. Ellis McTaggart, a distinguished admirer of Hegel, will not allow that thought, raised even to cosmic power, can hold all the wealth of the world-principle. Something which can include all contents is wanted. The new synthesis, he writes, whatever it may be, must reconcile the oppositions of knowledge, will, and feeling, and overcome "the rift in discursive knowledge and the immediate for it must no longer be the alien. It must be as direct as art, as certain and universal as philosophy." 3 His difficulties, if I

Essay on the Creative Imagination (Open Court Co.), p. 332.

Our Knowledge of the External World, p. 241.

s Studies in the Hegelian Dialectic, 2nd ed., p. 229. Cf. also F. H. Bradley on the dependent and secondary standing of thought, Appearance and Reality, ch. xxvi.

may say so, are the opportunity of the imaginists who seek to show that their world-principle covers all sorts of appearances impartially. In making adequate the concept of Divine Imagining—a substitute fact which must be sufficiently rich to guide our living-we have to take our clues painfully from what the world-process reveals, imagining nevertheless adventurously when we can do nothing else. Unable to undertake the task now, I must refer readers to the Positive Vindication of Imaginism furnished elsewhere. In the opinion of Dr. Schiller, himself a pluralist, Divine Imagining "can really afford to be what other metaphysical principles falsely claim to be, viz. all-embracing. It can be represented as including not only all reality, but all unreality." 2 And this is perhaps the best thing that can be said about it. Further, it evades no problems. Thus, if the real is rational and the rational is real, a solution of the riddle of evil cannot be found. man eaten alive by ants is ignored by Hegel. But precisely because the world-principle is Imagining, we appear able to furnish a solution which is complete, which makes appeal not only to the dialectician but to the plain man.

A word on a much-discussed topic. There is no necessary opposition between idealism and realism. Thus Imaginism is idealistic in respect of its world-principle; it is also realistic in respect of the vexed question of the "physical world," the storm-centre of recent controversy. Realism asserts that the things of this world—things, we must add, that are found and not merely delimited by our interests—exist, endure, and interact independently of their appearance to finite percipients. There are forms of idealism which are incompatible with this belief, e.g. those that extradite things from the "medium" of private mind. But Imaginism accepts and endorses it, adding, however, a significant and indispensable rider.

What of the moon? The moon (like Drossbach's atom, Faraday's force-centre, and Dr. Whitehead's electron) is not located merely where popular opinion places it. It penetrates

Divine Imagining, pp. 31-64.

² Cited Divine Imagining, p. 43.

with its "relations of influence" all quarters of our world-system. And penetrating thus, it can be perceived, duly modified, in any of the regions penetrated, provided always that the region is the seat of finite consciring. Suppose that the region is a cerebral cortex. The moon can appear there and, under suitable conditions, may be perceived (conscired). But its appearance there, as a perception, is not all the rest of its appearances in the world-system. And if the cortex and the perceptions allied with it vanish, these residual appearances persist, including those present where astronomers place the moon.

Thus realist and imaginist equally believe in independent things which merely announce their reality to finite sentients. But let us note now an outstanding contrast. The realist is apt to discuss these things without any further reference to mind. The imaginist establishes them on Divine Imagining, of one of whose arrangements of space-time-contents they form a part.

In concluding these remarks I must urge that, in my opinion, Imaginism must provide satisfactory solutions, not merely of problems of cosmic scope, but of those concerning the standing and prospects of the individual or finite sentient. Happily we are rid of the philosophies of the Unconscious, of world principles, like Schopenhauer's Will or Schelling's Immemorial Being:—

... like a knitter drowsed, Whose fingers play in skilled unmindfulness, The Will has woven with an absent heed Since life first was; and ever will so weave.

Accepting such a principle, we could understand, with Hardy's Spirit Sinister, why "rare dramas" occur, and could agree also that:—

Howsoever wise The governance of these massed mortalities, A juster wisdom his who should have ruled They had not been.

" "Spirit of the Years" in Hardy's Dynasts.

It remains, however, for those who reject "unweeting Mind," who regard the much trumpeted evolution of the conscious from the subconscious as nonsense, to try to deal seriously with the colossal problem presented by the history of mankind. To what end is this long martyrdom, not only preponderantly painful but in large part offensive, squalid, and foul? the question now being asked in so many quarters, and an answer, not wholly unsatisfactory, will in the long run have to be made. Schopenhauer and von Hartmann did not expect any early revolt of man against his life-conditions. But the centuries fly apace, and with increasing knowledge the time for the great decision draws nearer. Economic progress and a wealth of inventions will only free man for thinking, and bring him nearer to the fateful crisis. To multiply or cease multiplying? Even to-day one-third of the male population of Thibet will not mate, and there is no power which can exact from us a posterity against our will.

In certain academic circles it has been fashionable to treat belief in continuance with a certain indifference or even contempt. But Professor McDougall (Body and Mind, Preface, xiii) strikes a truer note. "It seems to me that the passing away of this belief would be calamitous for our civilization." It would later, I submit, prove calamitous also for mankind. But we require not only the confirmation of this belief (which some surface-discovery in psychical research might furnish) but a more or less satisfactory account of the world-setting in which it has to be accepted. No future metaphysical system, which proves unequal to this task, will be worth the "proofs" which precede its printing. Imaginism then must fulfil, as thoroughly as possible, the duty which is imposed by this need. Let me add that most of its labours in this adventure lie ahead.

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FROM IDEALISM TO REALISM

By G. DAWES HICKS

Born 1862. Educated at Guildford Grammar School; Owens College, Manchester; Manchester College, Oxford; University of Leipzig. Professor of Philosophy at University College, London.

BIOGRAPHICAL

Most of my boyhood was passed in Guildford. I attended the Grammar School there, and was nurtured in the classical tradition. But during my school-days I became interested in problems of science and philosophy, mainly through reading books in my father's My father was a solicitor; and, after leaving school, I spent three years in his office. My taste was not, however, for the In 1884 I obtained a scholarship, which enabled me to proceed to Owens College in Manchester. Here I studied mainly under Professor Adamson, to whom I owe a deep debt of gratitude. I attended also classes in Chemistry, Physics, Biology, and Physiology, and did a fair amount of laboratory work. I graduated with Honours in Philosophy in 1888, and then proceeded to Manchester New College, as it was at that time called, which moved from London to Oxford In Oxford I attended regularly the lectures of William Wallace, R. L. Nettleship, and Cook Wilson. I obtained a Hibbert Scholarship in 1891; and in 1892 went to Leipzig, where for four years I was engaged in research work during the period when Wundt and Heinze were the leading teachers in the Department of Philosophy. Throughout those years I was largely engaged in the experimental work that was going on in the Psychological Institute. I graduated at Leipzig in 1896. On my return to England I was appointed minister of Unity Church, Islington, and continued in that position until 1903, when I retired from the ministry. In 1904 I came to reside in Cambridge. In the same year I was chosen to fill the Chair of Moral Philosophy in University College, London, the title of the Chair being changed to that of Philosophy in 1911. I have also lectured in Cambridge on psychology and philosophy since 1910.

FROM IDEALISM TO REALISM

There is a well-known saying of Lotze's to the effect that it is only inquiries conducted in the spirit of realism which will satisfy the aspirations of idealism. However that may be, I think no worker in philosophy will regret having passed through at some period of his history an idealistic phase of thought. It is a great advantage to have felt for a while at least the strength of the idealist position through having viewed it from within, from the vantage-ground of one who is convinced of its truth. For I doubt whether the strength of the case that can be made out for an idealistic interpretation of the world is ever realized by those who survey it merely from the outside, and whose attitude towards it is that of hostile critics engaged in demolishing now one and now another of its various tenets.

T

The idealism within the boundaries of which for several years my own thought turned was reached from a careful study of the Kantian philosophy. In my undergraduate days (at Owens College, Manchester) I worked under the guidance of Robert Adamson, probably the greatest Kantian scholar whom this country has so far produced; and, by the time I had taken my degree, he had convinced me that "if we are to connect our knowledge into coherency and system, and to understand, so far as it may be given to us, the significance of the universe in which we find ourselves, we must resume the problem as it came from the hands of Kant." When, through having obtained a Hibbert Scholarship, I was enabled to proceed in 1892 to Germany, and to spend four years at the University of Leipzig, the opportunity was afforded me of concentrating attention upon

the text of Kant, and of becoming acquainted with the vast literature that has gathered round the Kantian writings. Naturally, I passed on to a study of the Post-Kantian idealists; and it is not surprising that, at the end, an idealism more or less on the lines of Hegel's seemed to me the one legitimate outcome of Kant's speculation.

For the truly critical mode of reflexion leads indubitably to an interpretation of knowledge radically opposed to the subjectivism into which Kant, in his unguarded moments, was perpetually lapsing. After having laid down the maxim that experience must be construed in terms of mind, he was constantly tempted to take that maxim as implying that the experience of a finite subject consists of complexes, syntheses, of Vorstellungen, mental elements. Yet a subjectivism of this kind was not only uncalled for, it was positively inconsistent with the critical theory. A more hopeless position before the problem of knowledge is scarcely conceivable than that of the thinker who endeavours to combine the contentions (a) that our experience consists merely of mental elements, facts of mind, and (b) that the very essence of an act of knowing involves a reference to that which is other than and independent of the individual thinking mind. Not only so, Kant himself was strenuous in maintaining that the individuality of the finite subject is no less certainly a part of the world of experience than any so-called material thing, and that the modes of its being and growth, instead of determining the nature and relations of the world of experience, are themselves determined thereby. When he laid it down as the principle upon which the critical method was founded that all so-called facts of experience must be interpreted in accordance with the forms of apperception, and that apperception, the transcendental unity of self-consciousness, must be distinguished from the empirical existence of the finite subject, he was drawing, with whatsoever imperfection of phraseology, the all important contrast between Vorstellungen, conceived as facts of mind, and that which was apprehended through or by means of Vorstellungen, that which relative to them was objective. That is to say, he was virtually drawing the contrast which in Hegel's

philosophy became fundamental between thinking as a subjective process of the finite mind and thought as objective. The thoughtrelations, the categories, which were regarded by Kant as giving the intelligible aspects of the realm of empirical fact, were taken by him to be and were expressed by him as being in no sense accidental forms, not even invariable ones, of the particular mechanism of thinking in finite minds, but forms which rendered finite minds themselves possible. And to defend the position no more seemed to be requisite than recognition of the fact that the finite subject may become aware of his own empirical and determined existence as part of the sum total of his experience. That such a distinction should be possible for him, that he should thus in the very act of knowing transcend the limits of his own finitude, was obviously a characteristic of human knowledge not to be ignored, and which remained inexplicable so long as attention was confined to a succession of mental states as making up the subjective existence of the individual mind.

In short, the fundamental principle, disguised under many a strange fashion of speech, of the Kantian theory of knowledge, may be said to be the principle of self-consciousness. Selfconsciousness was the condition of consciousness and not vice All knowledge, all experience, is only for self-consciousness--such was Kant's general standpoint. But self-consciousness so conceived could not be regarded as an individual Rather was it the common factor in all consciousness. that in virtue of which consciousness is what it is, that in and through which individuals are and are connected with one another. Self-consciousness, or thought, was not, that is to say, to be looked upon as a product, the nature of which was due to a set of antecedents mechanical in character, even mechanism of the kind described as psychical; on the contrary, it was ultimate. When, however, Kant came to work out the implications of the theory, a number of conflicting considerations were allowed to intrude. By an analysis of experience, as it presents itself in ordinary, empirical consciousness, he sought to ascertain the features in that experience due to the presence of the central principle. Yet, in consequence of his unfortunate method of

dealing with the elements of experience in isolation from one another, the central principle tended in his treatment to be lost from sight. While insisting that experience is possible only as a synthetic combination in the unity of self-consciousness, and that nothing can enter into experience save what is in harmony with the conditions of such combination, he would have it that the matter of experience was extraneously given, and was in itself a chaotic manifold of passively received impressions. The result was failure to bring the subordinate forms of apprehension into organic connexion with the fundamental principle of cognition. The forms of intuition were, for example, placed in no intimate relation to the unity of selfconsciousness. The finite subject was declared to be receptive; but how or why it should appear to itself receptive, how or why it should be receptive in the forms of space and time, were questions left by Kant wholly untouched. So, too, while doubtless an effort was made to show that the categories are implied in self-consciousness, it was not shown how or why they are so implied, nor how they are connected with one another and constitute a system. And since intuition and understanding were throughout regarded as disparate faculties, there was always, in any concrete fact of experience, an opposition between the universal necessary form and the particular contingent material; the fusion of these in a concrete object of knowledge was never other than mechanical.

I cannot say that I ever felt quite at ease with Hegel's mode of surmounting the obvious defects of the Kantian treatment of experience, but for a long while it certainly did seem to me that we had in the Hegelian metaphysic the critical method developed with a full recognition of its true import. And I think still that the Hegelian idealism, or something akin to it, is the terminus towards which one trend of Kant's reflexion may legitimately be said to carry us. Hegel was, at all events, in earnest with the conception of self-consciousness as Kant had formulated it; he was resolute in attempting to determine the conditions under which its realization was possible and to trace the evolution, in strict logical sequence, of the elements.

which he took to be embraced in it. The Kantian categories and Ideas presented themselves to him as an imperfect adumbration of that system of pure thoughts or notions whereby the nature of self-consciousness (the principle of all reality), when laid out in the abstract, might be disclosed. The effort was at last made to bring these pure notions into essential relation with Mind or Self-consciousness; to exhibit them as constituting its inner being or structure, so that in their completeness they were but the unfolding of what Reality is in itself. They were accessible to our thought, so he conceived, by simply letting reality itself reveal them; and when we did so, our thought must necessarily be of the real, and, incomplete though its grasp of the real at any one stage may be, it will be driven onwards to ever increasing fullness.

Objection has frequently been taken to Hegel's procedure on the ground that he was assuming that "thought out of its own abstract nature gives birth to the reality of things." The generalities of thought were, it has been contended, conceived by him as forming a species of absolute structure or organization, in regard to which concrete reality had no other function than that of exemplification. And not merely, it has been urged, does a view of that sort conflict with the demands we are entitled to make for independence on the part of the individual subject, but it rests on no more than an utterly false abstraction of our For the real is the concrete, and is not exhausted in the abstract thoughts by which we express its nature; nor is it possible to understand how the abstract nature to which a quasi-existential mode of being is assigned could find realization I doubt whether criticism expressed in in concrete entities. this form is in truth applicable to the view against which it is directed. It was never, it might be replied, Hegel's intention to assign to the pure categories any measure of real existence. He was well aware that the only reality is the concrete, and that, in describing the abstract realm of thought, he was doing no more than disentangling from the conception of reality, as he viewed it, its indispensable elements. Certainly, there is no evading the conclusion that if there be a single ground of things,

that ground imposes on the whole development of concrete reality a form which is entitled in the strictest sense of the term to be called "necessary." But it by no means follows that the significance of the term "necessary" must be solely that which is relatively the most familiar to us—such necessity, as, for example, attaches to the connexion between premises and conclusion in a syllogism. It would be, indeed, an extraordinarily poor idea of the richness of real existence to represent it as having no more of necessity in it than the kind illustrated in the instance just given. Moreover, the priority of these abstract thoughts was not intended by Hegel to mean a temporary antecedence or that there was imposed ab extra upon the nature of real existence a structure or organization which constrained it to assume in its development a certain form. The priority was merely logical, and indicated no more than that in thus thinking we were laying bare the ultimate structure of reason itself, that reason which is actually real only in the concrete life of mind.

II

I was acquainted from the outset with criticism of the kind just alluded to, and my belief in the validity of the main arguments in favour of absolute idealism was not thereby undermined. The considerations that eventually did occasion doubts and misgivings were of a different order. Let me try to indicate one such line of consideration. That unity of self-consciousness, the mind's realization of itself, is possible only in and through apprehension of objective fact was the simple maxim which Hegel accepted from Kant and applied to the analysis of experience. It is a principle which so far is scarcely open to question. But the notion of the unity of self-consciousness is a slippery notion; it is apt either to assume so thin and unsubstantial a form as to be incapable of bearing the weight that it is sought to impose upon it, or else to become the notion of a unity so substantive and independent as to be debarred in another way from fulfilling the function required of it. Now, obviously the notion of self-consciousness as the ultimate ground of experience can only be reached by us from the analogy of selfconsciousness as evinced in our own experience. The Kantian categories were, it is clear, originally formulated as a result of reflexion on the character of scientific knowledge; and that in scientific knowledge unity of self is realized may at once be admitted. Yet from the psychological point of view we have no alternative but to regard the self and its unity not as primordial data, but as factors of experience which have come to be under the same laws of change and development that we find to be operative in experience as a whole. If the self and its unity be described in terms appropriate to scientific knowledge, the conclusion is unavoidable that not thus is the self present in the more rudimentary stages of intelligence; and the intermediate stages will have to be interpreted as the natural steps in advance from the simplest mode of consciousness to the developed type of the reflective apprehension of self. In this process of evolution, the determining factor cannot, therefore, be the activity of the self, equipped from the start with a whole armoury of categories; to postulate a self of that kind as performing the function of bringing about experience would be a reversal of the actua order of knowledge. Doubtless any apprehension of an orderly objective world is possible only through those psychical conditions which enable a connected consciousness of self to be attained. In saving that, however, we are according the first place not to the unity of self, but to the orderly, connected, uniform character of the given material which the self apprehends. Kant, it is true, was wont to speak as though, whatever the nature of the manifold supplied for the synthetic work of the understanding. the outcome of that work would in any case be a connected and coherent world of objects, whereas the conclusion to which his argument really points is that without a connected and coherent world of objects the understanding could neither arise nor get to work at all.

But if self-consciousness as we are familiar with it is a derivative fact; if the two correlative aspects, the subjective life of the self-conscious mind and the apprehension of what is objective develop side by side; if the contents of the self and the meaning

of its unity vary with the material of which it becomes cognisant, then it is no longer possible to advance by way of analogy from the notion of finite self-consciousness to the notion of an infinite self-consciousness as the sole ground and real essence of the world of nature. "The Absolute Idea," it has been said, "is only the perfect form of the relation which is found at all times between a knower and his knowledge. It was there Hegel found his Absolute, and, in this sense, Hegelianism is a systematized anthropomorphism." If, however, it be true that human self-consciousness implies a contradistinction from nature, and that the human mind only knows itself in knowing a nature that is distinct from itself, such "anthropomorphism" has been badly framed. It would be justified only on the supposition that the human self-consciousness comprised within itself the objects which in knowing it contrasts with itself. The very circumstance, however, that it has come to be by a process of development made possible by an external environment is sufficient to show that any such supposition is unwarranted. The reflective self-consciousness may in a sense take up and absorb the lower forms of consciousness from which it has been evolved, but assuredly it cannot in like manner take up and absorb the objects which it knows. Or, to bring out the point in another way, in respect to the finite self-consciousness, we are forced to distinguish between a universal and the notion or concept of that universal. A notion or concept is a way in which a universal is conceived, the mode in which it is grasped or cognized. It, no doubt, is a product of thought-of thought exercised upon a world of objects which are found to exhibit certain identities of character. Its manner of formation can be more or less psychologically traced. It is obtained by a cognitive process which is at once analytic and synthetic; a process, on the one hand, of singling out what is embedded in a matrix of reality, and, on the other hand, of bringing conceptually together what is presented in numerical difference. The universal to which it refers is a quality characterizing a number of particulars, often widely removed from one another in time and space—a "pervasive character of things," to use Alexander's phrase, appearing here, there and everywhere, under the most varying conditions, and not possessing the kind of unity which belongs to the concept. In short, the conceptual system is one thing, the system of reality to which it refers is another; and, whatever the relation between them may be, it is not, as Hegel took it to be, a relation of identity. So that, even though it be granted that the nature of Mind or Self-consciousness when laid out in the abstract is just the system of pure thoughts or notions which Hegel elaborated, yet these thoughts or notions cannot as such constitute the structure of existent reality; that is to say, the logical forms of thought have not, as such, anything strictly corresponding to them in the realm of objective fact.

Such, then, in meagre outline is one line of consideration that has led me away from the idealism of my earlier years. Other considerations to which I cannot here refer have likewise weighed with me, But, although Hegel's main contention seems to me now untenable, I have learnt a great deal from his writings. In particular, his strong and reiterated assertion of the principle that knowledge is knowledge of the real, that no realm of "ideas" interposes between thought and things, has always impressed me as a striking indication of his philosophic discern-"Thoughts." as his oft-quoted dictum expresses it, "do not stand between us and things, shutting us off from the things; they rather shut us together with them." On the other hand, the difficulty uniformly felt in wellnigh all realistic theories has been that they have been compelled to interpret knowledge not as knowledge of reality but of some tertium quid that intervenes between the knowing mind and reality. Experience has been repeatedly taken to be the result of the action of the real upon consciousness. The metaphor concealed in this mode of statement is that of a quasi-mechanical mode of operation; and the content apprehended in perception is readily pictured as a product due to the interplay of the real that is other than the mind and the real that is the mind. It is a conception which, in truth, strikes at the root of any explanation of knowledge. There are no means of evading the consequences that follow from such a conception. The world of real things

and the realm of produced presentations, however much of order and connectedness may accrue to the latter through the circumstance of being comprised in the unity of consciousness, fall inevitably apart from one another; and a certain baffling mode of existence, no less perplexing than that given in the Platonic theory to sense-particulars, comes to be assigned to what are called phenomena as distinct from real things. Frequently, while presentations are thus treated as effects, they are at the same time declared to be "manifestations" of that which gives rise to them. The term "manifestation" is itself beset with extraordinary ambiguity; but how, or in what sense, an effect can be a "phenomenal manifestation" of its cause it is simply impossible to see.

III

So long as realism is combined with a crudely mechanical account of the generation of experience it is certainly not in a position to withstand the fire of destructive criticism. The only realism which at the present day can lay claim to a respectful hearing must, it seems to me, be grounded on a theory of knowledge, in conformity to which it is possible to maintain that real things may be, and are, directly perceived without owing either their being or their nature to the circumstance of such perception. And that means that the content apprehended in perception must not be regarded as either a produced effect brought about by physical stimulation or as a construct on the part of the mind. This further implies that the content perceived must not be confused with, but carefully distinguished from the act or process of perceiving, which is, of course, a state or condition of the mental life itself. I have tried in various publications to work out in detail a view of the nature of perception which fulfils these requirements, and in what follows I propose briefly to indicate the main features of that view.

I start with a distinction which dates indeed from Aristotle, and which, thanks to Bradley, has become sufficiently familiar in current philosophical discussion—the distinction, namely,

between existence and essence or content, between the "that" and the "what" of any concrete fact. The occurrence of any act of perception, the occasioning condition of its existence as a state of the mental life, is, I have allowed, doubtless traceable to the physiological event of bodily stimulation; its character or nature, on the other hand, is not thus to be accounted for, but is explicable only by viewing it from within and as in relation to that upon which it is directed.

As regards the mode of occurrence, it will suffice to note certain general considerations. I am gazing (say) at the brown table at present in front of me. On scientific grounds, we are justified in asserting that a complicated network of physical and physiological events has been instrumental in bringing about this mental state of mine. From the table there have emanated modes of energy, and through them my visual organ has undergone impression or stimulation. In consequence of that stimulation, delicate changes, probably chemical in character, occur in the cones of the retina, the fibres of the optic nerve are thereby affected, and the influence, whatever it is, is conveyed by the optic-nerve fibres to the cerebral centres in the cortex with which the optic nerve is connected. What happens then? What is the next link in this chain of events? According to the mechanical theory to which I have referred, it is assumed that then, in a way admittedly mysterious, a transition is made, either in the brain or in the mind, from molecular motion to a so-called sense-quality. Under cover of the ambiguous term "sensation," there is supposed then to be produced both the brown colour and the awareness of it, though why, in that case, the brown should be projected into the object in front of me is confessedly no less an enigma than its mode of production. As a matter of fact, however, this supposed final stage in the sequence of events is nothing more than a gratuitous assumption. All we are justified in asserting is that either concomitantly with or in consequence of the cerebral change there arises, not a brand new quality nor even the awareness of one, but a mental state or activity, in and through which, when a certain other set of conditions has been fulfilled, and not until, there ensues awareness

of a definitely coloured object. The entire sequence of physical and physiological events might have occurred as in this instance, and even have incited a mental act, but unless that act had been directed upon something, in this case the table, the awareness in question would not have come about.

Turn now to the cognitive act itself. In attempting to determine its nature, we have got to dismiss all reference to the way in which it has come about, and to describe it not as it might conceivably present itself to an external spectator, but as it reveals itself to us conducting our analysis, so to speak, from within. A self-conscious subject is able, more or less, to take up this reflective attitude; it is possible for him to turn his attention upon his own mode of procedure in the act of perceiving, and to convince himself as to how it is that the state of mind in which he finds himself achieves its end, and becomes a definite act of awareness. What report, then, does the cognitive act give of itself when thus reflectively treated? Not at all, so far as I can determine, the report which it has sometimes been thought to yield. It does not reveal itself as an act of constructing. or of putting together the parts of, that of which it comes to be Viewed from within, it invariably evinces itself as a process, not of manufacturing an object, but of differentiating the features of an object, of gradually discerning distinctions which were not at first noticed, and of tracing connexions which were not at first discerned. In other words, it evinces itself. as in its essential nature an act of discriminating. Just as for Kant the act of synthesizing was the very act of knowing, so I would maintain that the act of discriminating is virtually the act of knowing, or, at all events, the fundamental characteristic of that act qua act. And I am prepared to carry this interpretation right down the scale of conscious existence, and to insist that wherever cognitive activity is exercised it is essentially a process generically the same as that which we find the process to be in our own mental lives. Undoubtedly, however, in the history of mind, discrimination exhibits the most varied stages of development-starting with the crudest possible distinction of that which appears as an obscure somewhat from the

vague indefinite background, and extending to the deliberate use of ideas of relation, such as we are familiar with in conceptual thought.

In the situation, then, which we describe as "perception of an object," two concrete facts are involved—on the one hand, the given object, and, on the other hand, the act or process of perceiving it. Each of these concrete facts exhibits the two aspects of existence and content. But, in view of what occurs in this situation—the gradual discrimination, namely, by the conscious subject, of the content of the object-a further distinction is here requisite. It is requisite, that is to say, to distinguish that which I have been in the habit of calling the "content apprehended" both from the content of the object and from the content of the mental act. To bring out the import of this distinction, James Ward's well-chosen illustration (employed by him, however, in a different context) of bestowing in the course of a few minutes half a dozen glances at a strange and curious flower will serve. Assuming that the act of apprehension is directed upon the actual flower, as a concrete fact in the external world, we may assert that the cognizing subject will gradually discriminate a multiplicity of its features-at first the general outline, next the disposition of petals, stamens, etc., afterwards the attachment of the anthers, position of the ovary, and so forth-he will, in other words, become aware by degrees of a variety of features constituting the content of the flower. And this awareness of the features of the flower is not, it is clear. something that can be severed from the act of being aware—i.e. the act of apprehending. If one describes it as the content of the act of apprehending at a particular stage of its progress, or as that which gives to the act in question its specific character and enables it to be distinguished from other cognizing acts of the same conscious subject, one will be doing no violence either to language or to the facts. No one would wish to maintain that this awareness is that which in the instance we are considering is cognized, that it is the object upon which the act of apprehension is directed. No one would, I should suppose, wish to deny that such awareness is a characteristic of the act of appre-

hension, when that act has reached a certain measure of completeness. In contrast with this, the "content apprehended" is that which is frequently designated the "appearance" of the object to the percipient. It, likewise, is not the object upon which the act of apprehension is directed. For the object is, ex hypothesi. the actual flower-an object which the conscious subject gradually comes to recognize has a variety of characteristics-shape, size, colours, etc. But the sum of the characteristics which the conscious subject will be aware of at any specific moment will be different from the sum of characteristics which he will be aware of at another moment, and either of these will only be a fragment of the much larger sum of characteristics which there are good reasons for believing the flower itself possesses. Clearly, therefore, the sum of apprehended features (i.e. the content apprehended, or the "appearance" of the object) is distinguishable from the larger sum of characteristics constituting the whole content of the object. Just as clearly the former cannot be an existent fact, be it called a "presentation" or a "sense-datum," or what not. For it is, if one may use the term in this connexion. a selection from the features forming the content of the object, and we have already premised that the content or nature of any concrete fact, such as a flower, is not to be confused with its existence, that its "what" is distinguishable from its "that." So far, then, from this selection of features being there, as an existent fact, prior to the act of apprehension, and in some way calling forth that act, it only comes to be in virtue of the act of apprehension having been first of all directed upon the actual object, and apart from such act would have had no "being" of any sort.

A further point is worth emphasizing. In the threefold distinction just insisted upon, the term "content" has been employed quite consistently and unambiguously. Throughout it has signified a sum of characteristics. The content of the given thing is the sum of its characteristics or properties; the "content apprehended" is, we may say provisionally, so many of these characteristics as are, for the time being, cognized; and the content of the act of perceiving is the sum of those charac-

teristics of the said act which is described as awareness of the features just referred to.

So far I have been speaking of perception, and for the sake of simplicity it was permissible to do so as though it took place on each occasion de novo. The conclusion reached as regards its essential character will be in no way invalidated by now introducing a factor I have been deliberately neglecting. The act of perceiving remains from first to last an act of discriminating and of thus becoming aware of the features of its object. But that process is enormously furthered by the circumstance that it takes place in a mind which by dint of long and repeated practice has come to perform such acts more or less habitually and by aid of the facility of retentiveness or revival. Now, if the foregoing analysis be on the right lines, it can alone be the awareness—the content, namely, of a mental act—that is capable of being revived or "reproduced." The "content apprehended" cannot itself persist after the act through and by means of which it has its being has ceased to exist. It cannot persist in and for itself, simply because it is not an existent. And it cannot persist in the mind, because it has never been "in" the mind, in the strict sense of the term. On the other hand, the contents of our own cognitive acts, the awareness, if one may so name them, which we live through, or *erleben*—these are the mind's own property, or rather go to constitute its very being, and these we are forced to recognize it has the power of retaining in some form, and of reviving, and of utilizing the retained awareness in the life of the present. A well-worn illustration of Hutchison Stirling's will here suit my purpose. When one fine morning a ship unexpectedly appeared on the horizon, what it was was evident at a glance to Crusoe. Yet, what to Crusoe was a ship was to his man Friday only an amorphous blur, a perplexing, confusing, frightening mass of detail, which would not assume for him the form of a definite coherent object. There was, that is to say, a tremendous difference between the contents apprehended by these two individuals confronted though they were by one and the same object. The external conditions were similar; the dissimilarity between what they respectively per-

ceived was largely traceable to their previous mental histories. Crusoe had seen ships scores of times before, and a revival of his former awareness came at once to his aid. What he was actually discriminating at the moment was probably far less than what Friday was discriminating, and yet Friday was at a loss to make out what the mysterious thing out there could possibly be. This instance is typical. In ordinary perception there can be no question, a vast deal of what we suppose ourselves to be immediately discerning is not, as a matter of fact, immediately discerned, it is discerned through the aid of the revival of previous awareness of similar objects. In other words, the perception of a mature mind is interpenetrated with what accrues to it from a long series of perceptive acts.

Thus, as the mental life develops, our apprehension of things tends to become less and less immediate and direct. The contents of what we call our knowledge, of what we are said to know about objects, gradually come to assume the form of an inward possession, constituting almost an instrument wherewith we proceed further to differentiate and to grasp the nature of the world to be known. Consequently, in the case of a familiar object—and the great majority of objects we encounter are familiar-we do not require on each occasion to discriminate afresh its manifold characteristics. The act of perception is certainly directed upon that object, but its familiarity saves us from the necessity of going through the whole process of discriminating anew. is enough that we discriminate at the moment only a relatively small number of its features; these immediately suggest the awareness of features previously discriminated; and the apprehension in question is attained with an ease and rapidity that would otherwise have been impossible. We have here, in fact, an example of that economy of labour which consciousness throughout its procedure exemplifies. In short, our perception tends to become less and less dependent upon what, at the time, is actually given; we bring to bear upon what is given a wealth of awareness which ensures that no perceptive act is ever, even in its incipient stage, devoid of specific contest.

Pursuing this line of reflexion, I have further tried to offer

an explanation of the content apprehended in the case of memory and imagination. The process of imagining is, in truth, I have argued, of one piece, so to speak, with the process of perceiving, the chief difference being that in imagination a relatively larger proportion of revived factors are involved. It is easy to make the transition from the one process to the other by means of instances in regard to which this is manifestly true. An imaginative child is, let us suppose, gazing at a mass of fleecy clouds in the play of the sunlight. Soon the shapes and forms of its various parts will assume for him the appearance of chariots, and horses, and warriors, like a scene in ancient legend. The child will, that is to say, be apprehending the given object through the medium of his revived experiences of pictures, story-books, tales to which he has listened, and so forth. To put it briefly, there is here, as there is in perception, a certain nucleus, if we may so express it, of actually discriminated fact, although considerably less than what is usually discriminated in normal perception. And round this nucleus of actually perceived fact, there is, in consequence of the revived awareness suffusing, as it were, the act through which the discrimination takes place, a penumbra, so to speak, of features that seem to share with the nucleus the characteristic of objectivity. That a large number of so-called "images" which appear to stand over against the conscious subject as objects are thus susceptible of explanation is, I take it, scarcely open to question. And I believe that it is a mode of explanation which may be extended to a variety of other cases where its applicability is less obvious. It is surprising how readily the phenomena of dream-images, for instance, lend themselves to this mode of explanation, and the same is true, I think, of memory-images in all their variety. The gist of the explanation, it will be observed, is not merely that sense-stimulation is involved. but that in imagination, where objective imagery is present. there is, as in perception, a real object upon which the act of discriminating is directed, and that this accounts for the objective character which the content apprehended seems to possess. although the number of the features of this object actually discriminated is considerably less than in perception, and the

portion of the apprehended content traceable to revived awareness considerably greater and more arbitrary and haphazard. It is necessary, no doubt, to recognize that bodily factors, and not only extra-organic things, may, in many situations, function as objects.

One way of expressing the central position of the theory of knowledge of which I have been trying to give a sketch would be to say that cognition is, in all its various forms, essentially of one piece, essentially of one character, that even the simplest and most rudimentary modes of cognitive activity are already in essence acts of judgment. For no one doubts that an act of judging is fundamentally an act of discriminating. however, a psychological disadvantage in extending too widely the scope of the terms "thought" and "judgment." If it be recognized that the primary function of discriminating, comparing and relating is present from the beginning of cognitive apprehension, the terms "thought" and "judgment" may be restricted to the higher developments of cognitive activity, which involves both this primary function and the results attained by it in the sphere of sense-perception. The terms "thinking" and "judging," as ordinarily understood, denote, of course, an extremely complex reflective act, which depends for its exercise on definite recognition of the distinction between the inner subjective experience of the individual and the real world apprehended by him about which his judgments turn. But in "thinking" as thus understood, there is carried to a greater range of adequacy and completeness just that same activity, the character of which I have sought to exhibit in dealing with sense-perception.

IV

The theory of cognition I have thus briefly described is, it will be seen, thoroughly compatible with the contention that, step by step, the human mind is attaining to a knowledge of the universe as it actually is, a universe which is there to be known, and which is not dependent, so far as either its existence or nature is concerned, upon the mind that knows it. A contrast between

the content known and the actual reality we are doubtless constrained to admit, and it may be urged that this is no other than the old contrast between the phenomenal and the real. the difference between the two modes of conceiving the matter is fundamental. The content apprehended is certainly to be distinguished from the real, but not as though it were one fact set along side another. It is not a tertium quid situate between the apprehending subject and the thing or event apprehended by him; it is a way in which the latter is known, a way in which knowledge of the latter is had, and this very characteristic precludes us from regarding it as itself an existent. We may call it a "phenomenon" if we please, but in that case the contrast between the phenomenal and the real indicates no more than the contrast between a fragmentary and partial aspect of the real, and the real in its concrete richness and fullness-a contrast, in other words, between reality as it is but incompletely and as it might be completely known. The colours and sounds, and other sense-qualities, which we discern in Nature, are not, according to the view I am taking, creations of the apprehending mind; on the contrary, they are, what they purport to be, features of the reality which it discerns. The discriminative power of finite minds may be circumscribed and limited in countless ways, but there is nothing, so far as I can discover, in the nature of knowing as such to incapacitate it for the work it has to do, or to prevent it from approximating even nearer and nearer to the truth of things.

The problem with which I have been here concerned is mainly an epistemological problem, and I have left myself no space for venturing into the field of metaphysics. Let me, however, in conclusion, guard against a possible misunderstanding by disowning any attempt that may be made to see in what I have written a defence of the doctrine commonly called dualism. That material things and mental lives are entities fundamentally disparate in character I certainly hold to be true. But to me it seems that the world is full of entities, or modes of being, which are, in their way, no less disparate from one another in character than mind and matter. Nor am I in the least concerned to

dispute that absolute independence cannot be claimed for any of the concrete particulars of the universe, or that ultimately they must together form an inter-connected system. So much I should, on the contrary, be prepared to insist. Yet a bare statement of that sort amounts in itself to very little. The question for metaphysics to answer, if it can, is as to the kind of system that would be compatible with what we know of the contents of reality. I may be blind, but I fail to see why, in order to constitute a system, there must be one matrix from which all qualitative differences have arisen—one ultimate mode of being of which everything else is but a fragmentary manifestation. And in the effort to comprehend the nature of the inter-connected system of reality I am convinced we should do well to heed the great lesson of Kant's Dialectic, and recognize that notions or categories which are highly significant when we are dealing with parts of the universe may lose their significance if the attempt be made to apply them to the universe as a whole.

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ON THE WAY TO A SYNOPTIC PHILOSOPHY

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BIOGRAPHICAL

Turning over the leaves of the three volumes of *Die Deutsche Philosophie in Selbstdarstellungen*, which have suggested to our editor the plan of this book, I find that the task set to each contributor is twofold. He is expected, on the one hand, himself to cast up, as it were, the sum of his philosophical life-work, and, on the other, to give an autobiographical account of the experiences and influences which have made his philosophy what it is. How did his philosophy come to be? And what does it amount to? These are, broadly, the two questions to which, in self-interpretation, we are asked to give an answer.

It is no false modesty if I confess that I undertake this task, for myself, only with great misgivings. There are contributors to these volumes—like my revered and admired friend, Dr. Bernard Bosanquet, whose recent death has robbed English philosophy of one of its few outstanding figures-in whose company I feel like a dwarf amongst giants. And, again, I realize acutely that I have no compact and finished whole of doctrine to offer which I could call "my philosophy." I feel that, just as I am still in the middle of life, so I am still in the middle of my philosophizing: and though, no doubt, my philosophical thoughts tend in the main towards a type commonly called "idealistic," yet most emphatically my report will have to be, not so much of achievements and results, as of tendencies and directions. Even so far as I can speak of a distinctive pattern into which my thoughts tend to fall, yet I am fully conscious that this pattern is still provisional and on trial, and that its component elements hold their place, not by any vivid and unshakable conviction of their truth compared with which all alternatives seem patently false, but only because, among many alternatives,

tried out again and again, they commend themselves as best "on the whole" and "all things considered."

How I came to be a philosopher and to adopt the teaching of philosophy as my profession, I can hardly explain adequately to myself, now that I look back on that momentous decision made nearly twenty years ago. It does not seem to me that either my German descent or my German schooling had much to do with it. For, although I can trace my parentage on both sides to the Suabian stock from which so many of Germany's Dichter und Denker have sprung, family tradition, had I followed it, would have pointed me rather to the Church or to business in the choice of a career. At school, my training was predominantly literary—Latin, Greek, and German. Comparatively little attention was paid to exact methods of thought, nor were we made aware, even in the upper forms, of the first principles, or at least assumptions, on which the conclusions put before us, or the choice between rival conclusions, rested. There was nothing comparable to the courses in logic, psychology and metaphysics, which, I understand, form part of the curriculum in the top form of a French Lycée. This neglect of emphasis on principles was true even of the teaching of mathematics. I was accounted good at mathematics, but I recall vividly that I used to get my results mainly by a happy knack, or ingenuity, in the application of rules or formulæ, the rationale of which I was all the time conscious of not understanding at Indeed, it was not made clear to me that there was a rationale for the procedures which I learned so skilfully to manipulate. Mathematics seemed to me, not so much a supremely logical structure, as a bag of tricks. When, later on, I came upon Mr. Bertrand Russell's paradox that a mathematician never knows what he is talking about, nor whether what he says is true; or when I found Professor C. I. Lewis, in Survey of Formal Logic, showing how mathematical logic may, by wilful abstraction, be regarded as merely a kind of game played with symbols according to arbitrary, but strictly defined rules, I realized that this had been exactly my own attitude towards mathematics. Needless to say, I have learnt better since then. I know now that in mathematical operations one is speaking a language through which certain things are said which cannot be said so clearly or precisely in any other way. I hold now that mathematical symbols constitute a language which appeals to the eye rather than the ear, which has to be read rather than spoken; and that it is a problem of great philosophical interest just what can be said, and said best (if not said exclusively), in this language concerning the nature of the world.

Perhaps my nearest approach to philosophical speculations during my schooldays was through the theological discussions in which with a group of friends I used to engage. We would pace the linden avenue round the playing-fields in the old monastery garden of the Landesschule at Pforte, near Naumburg on the Saale, and decide, in hot and eager debate, that the concept of the Trinity, Three Persons in One God, was an insult to logic, and that there was no evidence for the existence of God. We took some of our difficulties to the school chaplain, Professor Witte, son of a well-known Dante scholar, but his attempt to make the doctrine of the Trinity plausible to us by the metaphor of root, trunk, and leaves in a tree—one living thing in three forms of manifestation-met from us a rejection as uncompromising as the doctrine itself. On these, and many other topics, our thinking was more vigorous and challenging than understanding. It was only years later that, through the study of philosophy, and especially of the philosophy of religion, I came to look at religion and religious doctrines with different eyes. The crude literalness, for instance, with which we interpreted "person" on the analogy of distinct human individuals, has had to yield to the knowledge that persona means, originally, an actor's mask, and thence an actor's part, whence it was an easy generalization to extend its use to any part that a man plays in life, any function that he performs. In this sense one God may well be, or rather have, three "persons." I have come. to see, too, that religion is a spiritual phenomenon without a sympathetic understanding of which any philosophy must remain incomplete; that it is, in short, a mode of experiencing the world which no metaphysical theory of the nature of the

world can afford to ignore. But of this more below. Here I will add only that if philosophy has helped me to see that the religious attitude towards the world is, in principle, reasonable, it has not led me back to regular membership of any Church. In the demands of any particular orthodoxy I still feel the intellectual prison-house, rather than the truth which makes free.

For two generations my family had been connected with India, where my father, the well-known Oriental scholar, Dr. A. F. Rudolf Hoernlé, Ph.D., M.A., C.I.E., was born. Thus, I, too, am by birth a British citizen, and it was natural, therefore, with a view to my future career in England or in the British Empire, that I should pass from German schools to an English University. When I entered Balliol College, my plan was to prepare for the Indian Civil Service by taking Classical Moderations and Litteræ Humaniores ("Greats"). For a long time my interests were equally divided between Philosophy and Greek History, and I cannot now say what finally turned the balance in favour of the former. Partly, perhaps, it was the influence and encouragement of the then Master of the College, Edward Caird; partly, too, the stimulating tutorial hours with J. A. Smith, now Waynflete Professor of Moral and Metaphysical Philosophy at Oxford. But, most of all, it seems to me in retrospect, it was the study of Plato and Kant which fixed in me the determination to devote myself to philosophy, after my curiosity had been aroused and whetted by the reading of the works, first, of Nietzsche and, next, of Schopenhauer. Yet, it was not so much that I accepted the positive doctrines of Plato and Kant, as Schopenhauer had accepted them, with enthusiastic acclaim. No, they held me and drew me on rather by baffling and eluding me. So far from their breaking on me like a sudden light, they rather presented problems to me of intriguing difficulty. The more I acquired the sort of knowledge of them which enables one to answer examination questions, the less I felt satisfied that I really understood In Plato, I recall, that my questionings and puzzles centred especially around the Form of Good, the relation of the Forms to the particulars of sense, and the discussion of error in the Theatetus. In Kant, the concept of the thing-in-itself, the Transcendental Deduction of the Categories, and the criticism of Rational Theology in the "Dialectic" of the Critique of Pure Reason, played a similar part as intellectual irritants. This effect was heightened by Caird's treatment of Kant as having aimed at, but failed to achieve, a view which Caird identified, in its general outline, with that of Hegel: This view, which I then knew only through Caird's presentation of it, I found even more elusive, though I acquired the knack of its Thus, it seems phraseology sufficiently to bluff the examiners. to me, I became a philosopher chiefly because my philosophical studies as an undergraduate both aroused my interest in certain problems and offered me answers which I did not understand to my satisfaction. It became clear to me that if I were to gain this understanding at all, I should have to take up philosophy for its own sake. My election to the Jenkyns Exhibition at Balliol College, which was followed by that to the John Locke Scholarship in Mental Philosophy of the University, and a year later, to a Senior Demyship at Magdalen College encouraged me to persist in the choice of philosophy as my life's work.

In the autumn of 1905, I got my first teaching appointment as Lecturer in Philosophy under Professor B. Bosanquet at St. Andrews University. With this appointment began my Wanderjahre, which have been unusually varied and prolonged. In January, 1908, I moved on to my first Professorship, at the South African College, Cape Town. There I spent four strenuous but happy years. Much of it was pioneering work, but I found Schiller's saying verified in my own experience: "Es wächst der Mensch mit seinen gröss'ren Zwecken." It was heavy work, too-rarely less than fifteen hours of lecturing per week for thirty-six weeks of the year; and when a Department of Education was started, I acted for a year as Professor of Education, in addition to my work as Professor of Philosophy, until the College funds permitted the founding of a Chair of Education. For a year, too, I held the position of Vice-Chairman of Senate. The Chairmanship being honorary, and the College having no Principal, the Vice-Chairman of Senate

was the chief administrative officer, and without any relief from his regular teaching duties, found himself engaged in committeework almost every afternoon. Needless to say, the scholar in me suffered, for the time, from this burden of practical work, which left no leisure for writing and very little for keeping up with current literature. But the man and the philosopher, I think, profited by this experience of affairs and of the handling of men. I seemed to verify in myself what I take to be Plato's teaching, viz. that practical experience is a necessary element in the training, not only of a philosopher-king, but even of a philosopher. There was, moreover, one experience during these years which has proved of great value to me, especially for my understanding of political philosophy. I was fortunate enough to be a close spectator of the movement which culminated in the formation of the present Union of South Africa out of the four independent self-governing colonies. This experience of the birth of a nation, this sense of an irresistible tide of aspiration -uplifting hearts in hope, subordinating selfish and parochial interests resolutely to a large ideal of common good, undoing in generous co-operation the divisions and hatreds left behind by war—have made an abiding impression upon me and given me many a clue for the interpretation of the "idealistic" theory of the State.

In January, 1912, I was recalled to England, to be the first occupant of the newly-created Chair of Philosophy at the Armstrong College (Newcastle-on-Tyne) in the University of Durham. Thence, in the summer of 1914, I moved on to join the Department of Philosophy at Harvard University, having been invited to do so after a visit to Harvard in the autumn of 1913. My six years at Harvard, during two of which I acted as Chairman of the Department, have been among the most instructive of my career. They have brought me into contact with many of the ablest and most active philosophical thinkers in the United States, among whom I must specially mention my colleagues at Harvard, Professors R. B. Perry and W. E. Hocking. They enabled me to study, from the inside, an academic system which presents a most interesting fusion of Scotch and

English with German models. For the Ph.D. system has been adopted from Germany, whereas the education up to the B.A. standard has been modelled on Scotch and English traditions. I gained, too, at first hand, an insight into the various tendencies of philosophical thought in America, and especially into "realism" in its diverse forms. And, again, I owe to America an experience which has illuminated for me the working of human nature in society. I observed there on a large scale, how, under the stress of the war-born demand for unity of action and uniformity of thought and feeling, a free people will deny liberty—even constitutionally guaranteed liberty—to unpopular views and causes; and how democracy triumphant will employ against its critics and enemies, actual or supposed, exactly the same weapons of repression and persecution as those by which autocracy once sought to defeat the spread of democratic ideas.

In the summer of 1920, Armstrong College invited me back to my old Chair, but once more, as I write these lines, I am about to move on-this time, for reasons of my wife's health, back to South Africa, to the new University of the Witwatersrand at Johannesburg. My work at Newcastle, since my return, has been inspired mainly by the thought that a University placed, like Armstrong College, in a centre of business and industry owes a duty not only to its enrolled students, but to the whole community of which it forms a part. It should strive to be the focus of the intellectual life of its neighbourhood, and offer to its fellow-citizens an opportunity to keep in touch especially with those larger movements of thought in science, in philosophy, in religion, which lie behind the visible scene, and make or un-I have tried to do my share towards the make our civilization. realization of this ideal, both by means of courses of public lectures and by the formation of a Seminar in which professional men and women met together for more systematic study and discussion of philosophical problems. The success of this experiment would seem to show that there is here a real need to be met.

In general, the influences of family, school, university, and the varied life of my Wanderjahre seem to me to have combined with

an inborn responsiveness to new impressions and adaptability to new environments in giving to all my philosophical thinking a certain "synoptic" character. Wherever I have lived, I have found in myself a desire to identify myself with the life around me, to enter into it and share it from inside, rather than to stand outside as a mere spectator or even to reject it as foreign to myself. To see a problem, be it practical or theoretical, from a new angle through another's eyes and to appreciate for myself how it presents itself from that side, have for me a peculiar fascination. This attitude rests on no mere whim of curiosity, nor on a mere instinct of sympathy and fellow-feeling. No, it is for me one with the synoptic method of all my philosophical thinking, which itself rests on the assumption that truth has many sides, and that to the whole truth on any subject every point of view has some contribution to make. Moreover, it has led me to emphasize that not only does onesidedness involve abstraction and partial error, but that the correction of one-sidedness requires the first-hand exploration of other points of view-a study of them, not only from the outside, but by genuine acquaintance from within. Philosophical thinking on any subject, if it is to be worth anything, should always be, in Royce's apt phrase, "from the life." doubt, mere range, mere wealth of data, mere width of experience do not, of themselves, guarantee understanding or insight. Yet, on the other hand, I hold that if we are to think fruitfully and relevantly, we must have something to think with, and that, given the power to extract from data by synoptic insight the total truth they have to teach, the more materials we have to think with by first-hand acquaintance, the better is our chance to get near to the truth. This ideal of synopsis dominates all my thinking. It predisposes me, for example, to accept the view that to our perceptual knowledge of a physical object every "perspective" and every sensation has a contribution to make, and that the whole nature of the object cannot be known otherwise. So, again, in all practical matters, where diverse and perhaps even conflicting interests are involved, I am led to assume that, whatever adjustments and even sacrifices may be necessary,

yet each interest has a right to be considered a factor in the problem to be solved. In the same spirit I hold that the philosopher must draw on all types and modes of experience—scientific, moral, æsthetic, religious—in his interpretation of the world, and that his interpretation will depend on the kind and degree of his first-hand acquaintance with each of these types of experience no less than on his synoptic power.

The complexity of modern civilization may well make such an encyclopædic ideal seem unattainable, and even at best, the effort to realize it, within the inevitable limitations of any one philosopher's experience and power of synopsis, carries with it the danger of dispersion and superficiality. But these practical difficulties of realization, which I feel very acutely, do not seem to me to invalidate the ideal as such, or to diminish one whit its value as defining the direction in which philosophy must ever strive.

For me, at any rate, this ideal and this attitude have grown out of the circumstances and influences that have determined the course of my life so far and moulded my thinking. So far as the passing years have brought me "wisdom," it lies in this synoptic outlook which has gradually taken shape and come to clear consciousness within me. It is the philosophical correlate of the cosmopolitan outlook in politics which I owe, not only to the combination in me of German descent and British citizenship, but still more to the lesson which South Africa, above all, has taught me, viz. that the British Empire, judged by its best ideals, is not so much an "Empire" as a Commonwealth of Free Peoples-a working instalment, as it were, of the League of Nations. That one-sidedness and narrowness in thought and feeling furnish an inadequate basis for solving the practical problems of statesmanship, no less than the theoretical problems of philosophy, I learnt from watching the relations of Boer and Briton, and of White and Black, in South Africa. And the same lesson was re-enforced and enriched by my experience of the American "melting-pot" in which fragments of all races and all civilizations are being fused together, not without strain and travail, into a new nation and a distinctive type of culture.

Such a cosmopolitan outlook—the political equivalent of the synoptic attitude in philosophy—is not incompatible, as I conceive, with patriotism, but it compels the patriot to ground his loyalty to his country on the conviction that, at its best, it stands for ideals which are non-aggressive and non-exclusive. After all, even the chief aims of foreign policy, viz. independence and security, fruitful breeders of war though they have but too often proved themselves to be, yet are not inherently and essentially aggressive. And in the fields of science, art. literature, the best work of each people enriches the culture of all and contributes to a common stock of human achievement. Such work, without ceasing to be national in character, is yet always supra-national in its appeal, and so far as men are responsive to that appeal they are freed from their present obsession by hatred, fear, suspicion, and revenge. For a philosopher, especially, there is no reason why his "spiritual home "should coincide with the political frontiers of his State, or why he should not learn, as I am conscious of having done, from Descartes as well as from Spinoza, Berkeley, or Kant. Émile Boutroux spoke truly when, ir lectures delivered before the University of Berlin in the spring of 1914, he argued that the German and the French spirit are complementary to each other and both necessary to the advancement of European civilization. Only, the principle is of general application, and holds for all countries and races which have any contribution at all to make to the sum-total of human achievement.

Again, this lesson which I seem to myself to have learnt from contact with many men in many lands, and with different national cultures, has been confirmed for me also in the field of scientific and philosophical theories. Here, too, an omnivorous interest and an open-minded responsiveness to new ideas and new movements of thought have combined to re-enforce in me the synoptic temper. And by an "open" mind I mean, not a jelly-like mind without structure or stability, but a mind alive, receptive, attentive to as many sides of human experience as possible. Philosophy, it seems to me, demands of its disciples the cultivation of this habit of mind. Certainly, the great

masters of philosophy have had minds of synoptic range, and I try, longo intervallo, to follow in their footsteps.

The effects of this synoptic attitude are recognizable in all my work, even in my reviewing of the books of my fellowphilosophers. Some critics are like gardeners who divide all plants into those they are willing to cultivate and encourage for their beauty and use and those they persecute and destroy as weeds. Such critics judge every book by the standard of their own views, treated as truth absolute and complete, and they accept or reject it according as it agrees or disagrees with that standard. My own attitude as a critic is more like that of a naturalist to whom every living plant is an object of interest worthy of study, as illustrating in yet a fresh way the inexhaustible resourcefulness of life. In practice, this means a wide tolerance: "It takes all sorts to make a world," and it certainly takes all possible points of view to exhibit the whole truth. Hence, in reviewing a book written from a new or unfamiliar point of view, I find myself much more interested in seeing the world through the author's eyes, than in criticizing him because he does not see it in my way. This may make, at times, for undue leniency of judgment-a witty friend remarked to me recently: "Your criticism is always like a caress"but at least it saves me from the inevitable one-sidedness of the polemics of the schools.

Here, too, is the proper place to acknowledge my debt to two English thinkers whose influence upon me has been so pervasive that I find it hard to estimate its extent. Anyone familiar with the writings of F. H. Bradley and of Bernard Bosanquet will readily appreciate that, with my bias towards a synoptic attitude in philosophy, I was strongly attracted towards their kindred method and outlook. I find it impossible to disentangle in my thinking what I owe to them from what is my own. Indeed, where nothing matters except that one should think and utter the truth to the best of one's ability, it would be foolish to stress points of difference or to base on them claims to distinctive originality. Concerning my debt to these two great thinkers, as, indeed, concerning my debt to all the thinkers,

great and small, of the past and of the present, whose thought has somehow enriched my own, I can only echo Bradley's own words: "If I had succeeded in owing more, I might then perhaps have gained more of a claim to be original." To find one's own impressions of the world endorsed by thinkers greater than oneself is one of the truest pleasures which the study of philosophy affords. There is little opportunity in philosophy for the experimental verification of theories on which scientists so frequently can rely for proof or disproof of their hypotheses. The only kind of verification which a philosopher can generally expect consists in the corroboration of his own conclusions by others. And even the views of acknowledged masters gain something from the testimony of a disciple who, re-thinking them for himself, finds them confirmed. The works of Bradley and Bosanquet offered to me the kind of method of philosophizing and the kind of resulting theory which most completely satisfied my philosophical needs. I say deliberately "the kind of method" and "the kind of theory," for it is to the general spirit of their philosophizing rather than to the details of their views that I feel myself indebted. Indeed, it is difficult to express such a sense of indebtedness, however profound and genuine, without at the same time seeming to imply a degree of dependence and similarity of view which would justly provoke the protest that I have been a very poor disciple, and that their work must not be judged by mine. Fully aware of this danger, I still must set down that in Bradley's demand for "comprehensiveness" and "systematization," for width of range (indeed, for allinclusiveness) together with internal coherence and harmony, I am conscious of having, for the first time in my philosophical reading, met with an explicit formulation of just the ideal which I mean by "synopsis"—a term, by the way, which we all owe to Plato, but for the reintroduction of which into the vocabulary of contemporary philosophy we have to thank especially the late Dr. J. T. Merz. On the other hand, though I have felt the force of Bradley's dialectic, which consists in exhibiting the inherent self-contradictions of all thought and inferring, thence, the reality of Absolute Experience as combining within itself

the immediacy of feeling with the ordered articulation of thought, I have never been able to adopt this dialectic, like Bradley, as the supreme method of philosophizing. I have always been more attracted by the positive and constructive programme of thought which is suggested by the ideal of combining a comprehensive survey of the whole field of experience with the tracing of a coherent order or pattern within it. So, again, I accept Bradley's famous definition of judgment as "the reference of an idea to reality," if I may take it to mean that the reality which reveals itself to us in every mode and kind of our experience is what we think it to be (or, has the character which thought ascribes to it). Similarly, I accept the view that we think truly when we think necessarily what we do think, if I am right in interpreting this "necessity," with Bosanquet, to mean that reality is what we must think it to be because, in the light of all the available evidence, we cannot think it to be otherwise. When we can say, "this or nothing," our thinking has the stability and coherence for the sake of which we call it "true." No doubt, Bradley is right in insisting that thought falls short of reality, that feeling and doing are other than thinking and knowing, that no "idea" or theory can ultimately be adequate to the real in its concrete character. Yet, with Bosanquet, I prefer to throw the emphasis on the other side and to dwell, not so much on the shortcomings of thought even at its best, but rather on the difference between better thinking and worse, and on the positive way in which thought at its best brings home to us the nature and meaning of the universe. I agree with him that the aim of philosophy, in the hands of such masters as Plato or Spinoza, Kant or Hegel, has been to give "the quintessence of life," or, in a fuller phrase, "a rendering in coherent thought, of what lies at the heart of actual life and love." I agree with him, too, that such philosophy, both in the deep conviction with which it is held and in the positive import of its doctrines, is not so much a "theory about" the real in opposition to concrete experience of it, but an attempt to express, and make explicit by reflection, just what we experience the true nature of the real to be. Thus, as a consequence

of this shift of emphasis, I value the method of dialectic chiefly for its power of exhibiting the insufficiency of one-sided and superficial views of the real and thus leading to a fuller and more stable understanding of its nature. So far as I use the method at all, I try to use it, like Bosanquet, as a means of criticizing first impressions and of focusing gradually the evidence of all relevant experience on the problem in hand, giving due weight, moreover, to the experiences which bring the deeper and completer insight. In short, the method of dialectic is an expression of the synoptic attitude, and all synopsis aims at comprehending "the quintessence of experience." Granted that Bradley's use of dialectic is justified for showing that thought, just because it is thought, must ever fail to grasp the real completely, yet, before we face this ultimate self-condemnation of thought, we can find ample scope for the use of dialectic in the service of synoptic thinking. For the best example, in present-day philosophy, of such synoptic thinking, and for the spirit and outlook upon life which go with it, I feel my debt is far greater to Bosanquet than it is to Bradley. After I had left Oxford, I passed through a period of revulsion from the "idealism" which I had been taught by Caird. Or, rather, I should say that I experienced a revulsion from what little I had mastered of that idealism and made my own. For, whatever the shortcomings of Caird's idealism may have been, I can see now in retrospect that my dissatisfaction was really the rebound from something which I had failed to understand. This found expression at the time in an article in Mind on Professor Baillie's Idealistic Construction of Experience, the reading of which marked the apex of my revolt against "idealism." It was from then onwards that I gradually began, through the study of Bosanquet's writings, to understand "idealism," or rather "speculative philosophy," better, and to recover a sympathetic and appreciative attitude towards it. In this sense, I was able to write, in the Preface to my Studies in Contemporary Metaphysics, that I owed the essential framework of my thinking to Dr. Bosanquet.

ON THE WAY TO A SYNOPTIC PHILOSOPHY

Turning, now, from the circumstances and influences which have made me a philosopher and helped to determine my philosophical method and outlook, I must try to give a brief account of the results and conclusions to which, so far, I have been led.

As the first result, I must set down my conviction, gained through philosophizing itself, of the supremacy of the synoptic method. I would like to supplement what I have already said about this method from the fuller account of it which I have given in the first chapter of my Studies in Contemporary Metaphysics.

It is obvious to anyone familiar with philosophical literature that the field over which philosophical discussion ranges includes, at one end, questions of detail-especially of logical and psychological detail—in which there is infinite scope for minute technical analysis, and that, at the other end, it rises to ultimate problems, to problems of immense sweep concerning the nature of the universe as a whole, which require more particularly a synthetic, or synoptic, power. Within so large a field, there is room for many different kinds of minds. Men not only differ in temperament and experience, but also in their intellectual interests and in the different proportions in which they draw upon the culture—the science, art, politics, religion -of their age. These differences will inevitably be reflected in the contributions they make to the common enterprise of philosophy, in the kind of philosophical work to which they devote themselves, the kind of philosophical theory they adopt. The philosophy of men of mathematical and scientific training. as striking examples among contemporary thinkers show, is apt to differ profoundly from the philosophy of men who draw rather on history and literature, or whose minds have been moulded by the handling of men and of affairs. Few of us. nowadays, have the all-round familiarity with all these sides of life and culture which is demanded in Plato's scheme of advanced education. Hence some are called "philosophers"

though they only concentrate on some problems of detail within the whole field of philosophy, or specialize, at most, in some section or sections of that field, abandoning the larger outlook and making no attempt to survey the field as a whole. And even when we try to take up the point of view of the whole, or, which is the same thing, to deal with fundamental and allpervasive issues, our limitations inevitably betray us. We may achieve a relative wholeness, but only at the price of exclusions and rejections which will reflect the sides of experience in which we are defective. It is clearly possible, as measured by the whole task of philosophy, to be more or less of a philosopher. And "more or less," here, means "better or worse," in exactly the same sense in which we distinguish a better and a worse in respect of all other qualities or activities of mind, as when we say that one man is a better mathematician, or painter, or statesman, than another. But there is always a danger that, in defining our ideal of the "true" philosopher, we may set up as standard our special interests or preferences, forgetting that by their one-sidedness they are also defects and limitations. The example and spirit of the greatest philosophers of all ages should here keep us straight. Taking their teaching and practice as my standard, I would maintain that the spirit of philosophy, at its fullest, is the spirit of wholeness. Concentration on problems of detail, specialization, selective emphasis on this side or on that, are necessary, no doubt, in their place, but they should be treated, not as final and satisfying in themselves, but as subsidiary and contributory to the central aim of philosophizing in the fullest sense, which is to seek a reasonable attitude towards the universe as a whole. This ideal of wholeness is satisfied only by the synoptic method which rests on two principles. The first may be called "the principle of comprehensiveness": There is nothing in the whole range of human experience which does not, in its own degree and measure, reveal the nature of the universe. The second is "the principle of organization ": For the full revelation of the universe, "as it really is," all partial revelations have to be brought together, so as to supplement, correct, interpret each other. Hence, the true philosopher is the metaphysician who seeks to know the real by eliciting from experience as a whole the nature of the real as a whole. He needs both an open mind, which treats all experience as relevant evidence, and a discriminating and ordering mind, which is guided in its interpretation of the nature of reality by the deeper and more central experiences, rarer though they may be than the surface moods and casual first judgments of everyday life. Thus, the metaphysician's theory will be expressive of his experience, and if that experience is narrow in range and inadequate in quality if he has poor materials to think with-or, again, if he fails to use his materials to the best advantage, the resulting theory will inevitably register such poverty and such failure. And, on the other hand, if the discrimination and selection of the experiences on which he relies to give him the most significant clues to the nature of the real are not, in their turn, guided and supported by philosophical theory, his philosophizing will be the sport of every passing mood or humour of his mind. There will be no progress in insight, no stability of outlook. synoptic method, on the other hand, whilst treating all experiences as relevant materials, or data, for philosophical theory, does not treat them all as of equal value. It is essential to it to discriminate between experiences which reveal little of the nature of reality, and experiences which have much of this revealing power-which are, as Spinoza says of ideas, "adequate." Thus, the method is not extraneous to the matter handled, nor is it accidental. It grows out of our experiences themselves, in that, coming together in our minds, they play upon each other with their own dialectic which, in philosophizing, comes to its own. Our thinking, in philosophy as elsewhere, is guided by what we think with. And when, reflecting upon the play of thoughts within us, we set down, abstractly, a "method" or a "way of thinking," the main gain is that we learn to do deliberately, and to aim at doing more efficiently, what spontaneously we do anyhow whenever we think at all. Thus, the method yields the theory, and the theory justifies the method-gives the reason why it is the right method.

Method and result are here correlative. If the nature of the real is revealed, in some degree, in every experience and if the full revelation requires the mutual interpretation and ordering of experiences through the dialectic process of reflective thought. then it is but natural that such a universe, thus revealing itself, will dictate such a method by "the logic of the facts," and that such a method will yield such a universe to the philosopher's "trained insight." In short, the universe is always with us. It is, and manifests itself, in us, for we are parts of it. is. and manifests itself, also, in all that we oppose to ourselves as "other." Every thrill of experience attests its presence, compels us to acknowledge that "something exists." But what this something is—this is a question which, if we are not content to answer it fragmentarily and piecemeal, drives us into the philosopher's enterprise of eliciting from all experience, synoptically considered, a view of the nature of the universe which shall be as complete, coherent, and stable as we can make it.

This synoptic ideal is aptly expressed by the Platonic phrase, "saving the appearances." An "appearance" is any way in which the universe, or "reality," reveals something of its nature, and the programme of "saving" the appearances calls for a theory which, so far from seeking to level all appearances down to one kind, or selecting some as true and rejecting others as illusory or false, acknowledges them all and seeks to assign to each its place in the order of the universe. And "to have a place" in this order, does not mean merely to be there or to occur, but to be there or to occur under definitely assignable conditions. Each thing, no doubt, is itself, and cannot be explained away into other things. But, on the other hand, also, each thing is conditioned by others in existence and nature. And the universe is what it is only as thus manifesting itself in an order of appearances, mutually conditioning each other.

This is the conception which underlies my Studies in Contemporary Metaphysics, and which I have tried to re-state, with less technical detail, in a set of public lectures which have been printed under the title Matter, Life, Mind, and God. These

books do not set forth a compact and rounded "system"; they only apply the synoptic method to a number of problems, selected from contemporary philosophical discussion.

Thus, Chap. II of my Studies, which is entitled "The Idol of Scientific Method," aims at showing that, if philosophy is to render in coherent theory the real nature of the universe as revealed in our experience, it cannot model its procedure on that of the sciences. I show that the advocates of this view, which has recently been resurrected with much beating of drums, differ among themselves concerning the nature of the scientific method which they agree in recommending. Some propose to model philosophy on mathematics and, therefore, to limit philosophy exclusively to such problems as can be treated by the methods of mathematics and mathematical logic. Others have in mind the experimental method of the natural sciences and, in the name of Pragmatism or Instrumentalism, propose to press all theory into the service of practice. Both methods have their uses, but neither is adequate for the task of philosophy as above defined.

From the consideration of scientific method, there is a natural transition to the philosophy of Nature, in which three problems have attracted my special attention.

The first concerns the ethical neutrality, or, put more generally, the abstraction from values, which are characteristic of the physical sciences. Die Wissenschaft kennt keine Werturteile. Here, again, method and result are correlative. In Chap. III of my Studies, on "Philosophy of Nature at the Cross-Roads," I examine various forms of this methodological attitude which, in the name of the ideal of "objectivity" and of dispassionate submission to facts as they are, contrasts truth, as the goal of "reason," with the illusions begotten by desire, hope, and fear. I try to show that this attitude in the hands of its advocates changes from the defence of the legitimate self-limitation proper to the technique of scientific enquiry to the denial that moral, esthetic, religious experiences have any metaphysical import at all, that they have anything to teach us concerning the nature of the universe. Only science—this is what the argument

amounts to—is genuinely "knowledge," and metaphysics must be the synthesis of all sciences or else nothing. Alternatively, we are told, in A. N. Whitehead's language, that "Nature is closed to mind," and that art, morals, religion may throw light on the nature of the human mind, but cannot ever throw any light on the nature of the non-mental universe. The answer to these arguments I conceive to be that mind is part of the universe and conditioned by it, and that, therefore, the nature of the universe must be taken to reveal itself in mind no less than in the non-mental world. And, further, I recur to the undeniable fact that Nature—the world of sense-perception does not merely live in our experience as an object of scientific study, but evokes and sustains in countless ways æsthetic, moral, and religious responses. Hence, it is an abstraction contrary to the ideal of synopsis, to attempt to deal with the whole nature of Nature (if I may use this phrase) on the basis of scientific experience exclusively.

The second problem in which I am interested is sufficiently remote from the first one, and I owe my interest in it largely to the influence of modern Gegenstandstheorie. Starting from the concept of Nature as "what we perceive by the senses," I try, in Chap. IV of my Studies, to make a contribution to the discussion of two questions, viz. (1) how we come to regard the field of sense-percepts at any given moment as a fragmentary part of a "world" which, as a whole, though perceptible in principle, is not actually perceived; and (2) how we select among the objects of sense-perception and imagination those which, as "real," we include in Nature from those which, as "unreal" (e.g. objects of dreams, hallucinations, fictions), we reject.

The third problem takes me, in Chap. V of the Studies, into the intricate field of the analysis of perception and judgments of perception. I call this chapter, "Saving the Appearances in the Physical World," because its aim, in keeping with the synoptic method, is to frame a theory of the world as we perceive it, which shall not discard sense-data as "mental" (and, therefore, not belonging to Nature), and still less set up an

"unknowable somewhat" as the alleged cause of the occurrence of sense-data in our minds, but which shall include all sensedata in such a way that each, in its place and character, may be accepted as a genuine bit of Nature, to be explained by formulating in "laws" the conditions of its occurrence. In this effort to "save the appearances" I find myself at one with thinkers so diverse as Berkeley, on the one hand, and A. N. Whitehead, on the other—an affiliation which is not purely accidental, as I have tried to point out in detail in a paper on "Berkeley as the Forerunner of Modern Philosophy of Nature," which I read at the Congress of Philosophy, at Paris, in December, 1922. Closely related with this problem of "saving the appearances" is the problem of Matter with which I try to deal in a lecture on "The Present-Day Revolt against 'Matter," published in the volume entitled Matter, Life, Mind, and God. I there try to distinguish four different senses of "matter" and to show how they all arise from different analyses of perceptual experience and its objects. My conclusion, there, is identical with that of A. N. Whitehead in his Concept of Nature, viz. that the sense of "matter" as the imperceptible and unverifiable cause of sense-data, conceived as mental sensations and thus divorced from Nature, is the only sense which Philosophy is concerned to deny. It is, in fact, both bad metaphysics and bad science.

From physics and the philosophy of Nature the next step in a synoptic programme is naturally to biology. Here two problems of special interest to the metaphysician are encountered—the problem of mechanism versus vitalism, and the problem of teleology. In Chaps. VI and VII of my Studies and in Lecture III of Matter, Life, Mind, and God, my aim is to support those biologists who, like J. S. Haldane, seek to maintain that in life, i.e. in the character and behaviour of the things we call "living," a definitely new phenomenon has appeared in the world, with the study of which biology is concerned. Such biologists reject "mechanism," i.e. the attempt to reduce living creatures to "physico-chemical machines" and to employ in biological theory nothing but

the terms and concepts of physics and chemistry. But equally do they reject "vitalism," i.e. the theory especially connected in our day with the name of Driesch, that the characteristic processes and behaviour of living beings are to be explained by the agency of a special factor which is not subject to physico-chemical laws in its operation. The view I seek to defend is that biology is an autonomous science, in the sense that it has its own distinctive field of objects and must frame its theories in terms of its own distinctive concepts, not because there is a special vital factor or agent involved, but because life is a distinctive phenomenon qualitatively sui generis, and to be studied, like any other phenomenon, in the context of the conditions under which its various forms occur, and in the absence of which they cannot occur. Biology is not reducible to physics and chemistry, but uses them so far as physico-chemical processes condition the phenomena of life -a relationship which I seek to express by saying that biology is "logically dominant" over physics and chemistry within its field. Thus, from the synoptic point of view, each science is autonomous within its own field and logically dominant over all other sciences which it uses in dealing with its special subjectmatter. In maintaining this view I owe much to the acute analysis and criticism of mechanistic concepts by Professor C. D. Broad. As regards the other biological problem, viz. that of purpose, it is, of course, obvious that biology has no evidence for supposing that the phenomena which it seeks to explain, occur when they occur, and are what they are, because some mind, animal, human, or divine, willed them just so. Yet, on the other hand, as Professor L. J. Henderson has forcibly pointed out, by dropping the concept of purpose we do not get rid of the teleological appearances in Nature which originally suggested the concept of purpose. From this side, therefore, I welcome the extraordinarily interesting thesis of Professor Henderson's Fitness of the Environment, in which he points out a large-scale and pervasive adaptation of the environment, in its very physico-chemical structure, for the needs of life. This seems to me to fit in well with a synoptic programme, for it

compels us to acknowledge that the phenomena of life are as much rooted in, and conditioned by, the ultimate constituents and laws of Nature as are the motion of the solar system or the formation of a chemical compound.

From life to mind! A survey of the present welter of theories in psychology (Studies, Chap. VIII) leads me to suggest that we may find salvation by adopting, and expanding, the functional theory of mind, or soul, which Aristotle first worked out. The synoptic method demands a phenomenology, i.e. a study of phenomena, and, therefore, of mind as a phenomenon -of mind as it displays and exhibits itself, both to an outside observer and to the agent's own self-conscious introspection. Rejecting the metaphysics of a soul-substance, we want to study mind as it appears in the world. Here the behaviourist is right who insists that to have, or, rather, to be, a mind is to do certain things—as E. B. Holt puts it, "working or playing, reading, writing, or talking, making money or spending it, constructing or destroying, curing disease, alleviating poverty, comforting the oppressed, and promoting one or other sort of orderliness." Such a catalogue, made complete, of the activities in which man expresses himself as a "rational animal," gives a good clue to what mind is and does in the world. whilst insisting on this, we have no right to reject the language of "consciousness" which enumerates, as the activities of mind, perceiving, thinking, feeling, willing, imagining, and many more. The important thing is to realize that if mind manifests itself visibly through bodily behaviour to others, it is also open to itself by self-observation, and that both these sources of knowledge, synoptically used, are required for an adequate theory of mind as a phenomenon. Along similar lines I try to treat (Studies, Chap. IX) the problems of self, leading up to the principle that the self is what it identifies itself with, focusing. however fragmentarily, the universe in itself.

The last group of problems which I have tried to draw into my synoptic survey is taken from the field of modern philosophy of religion, which has recently been enriched partly by re-statements of the philosophical arguments for theism

(C. C. J. Webb, W. E. Hocking, H. Rashdall, and others), partly by Professor S. Alexander's strikingly attractive, if unorthodox, theory of "deity" as a quality of perfection, which is the goal of the world's evolutionary nisus—a messianic hope transposed into the terms of modern thought. My own interest in this field. as shown by Lecture V of Matter, Life, Mind, and God and by a paper on "The Treatment of 'Existence' in Recent Philosophical Literature," lies chiefly in the various ways in which modern thinkers have tried to affirm the metaphysical import of religion, i.e. to argue that through religious experience or sentiment the supreme character of reality is revealed and becomes known to us. Thus re-stated, the ontological argument escapes Kant's objections. My synoptic point of view naturally inclines me to adopt, and defend, the general principle of this argument, though its conclusion, for me, is rather that the nature of reality justifies the religious attitude of worship towards it, than that it must be conceived in theistic terms. But I am also interested in extending the logic of this new ontological technique from the restricted field of religion to the general field of all human experience. In other words, I apply here the synoptic principle that all experience reveals something of the real, and that, hence, none is metaphysically negligible.

Other problems which have occupied my attention, especially since my return to England from America, have been the problem of meaning, and that of the importance for philosophizing of what I like to call "first-hand knowledge." To the former problem I had already devoted one of my earliest articles in Mind, entitled "Image, Idea, and Meaning" (1907), in which I criticize, more particularly, certain psychological doctrines in Bradley's Logic. Recently, in part under the influence of the writings of Husserl and Meinong, I have returned to the problem of meaning in an article which appeared in the Proceedings of the Aristotelian Society under the title "A Plea for a Phenomenology of Meaning." The topic of "first-hand" knowledge was suggested to me by current discussions of the difference between "knowledge by acquaintance" and "knowledge by description," but, instead of approaching the topic

from this side, I approach it through the question of the best conditions for possessing and realizing the meaning of the terms (words) in which we express our "thoughts." It, thus, brings me back from a fresh angle to the importance for philosophy of having rich and varied experiences "to think with." I hope in the near future to work up these papers and others into a second volume of Studies, in which I intend also to review the present-day issue between idealism and realism. As a preliminary, I am engaged in writing a brief popular account of Idealism for Hodder and Stoughton's Library of Philosophy and Religion.

Mention of idealism suggests, in conclusion, the question: In what sense, if any, am I an "idealist"? I find myself freely so labelled by others, owing, I suppose, to the general affinity of my philosophical outlook with that of Bosanquet. With Bosanquet, I should prefer the term "speculative philosophy" to idealism, for "idealism" means so many different things, and even Bosanquet occasionally uses language which, though it may be "idealistic," I should prefer to avoid. To some, the essence of "idealism" lies in the denial of the existence of the physical world and in the reduction of all objects to "mental states" (a view which, assuredly, was not Berkeley's). To others, it means the theory that reality is a society of spirits (or monads)—a view for which McTaggart claims the authority of Berkeley, Leibniz, and Hegel. A third party, of positivistic leanings, sees in idealism chiefly a philosophical dodge for exploiting the analysis of knowledge as a subject-object relation for the purpose of reaffirming an outworn theology in a thin philosophical disguise, God masquerading as "The Absolute." A fourth party goes back to Plato's Theory of Ideas, or Forms; a fifth seeks its orientation in Kant, or in one of the post-Kantian philosophers, Fichte, Schelling, Schopenhauer. am an "idealist," it is only so far as the views outlined above deserve to be called "idealistic," and no further. Not one of these views do I regard as beyond argument or discussion, but they do derive, for me, some strength from their mutual coherence in a pattern which leads me to conceive the universe

as an order of phenomena in which each kind of phenomenon has its distinctive and irreducible character and place. And all phenomena, focused in the one phenomenon, mind, which can apprehend itself as well as others, seem to me, for a synoptic view, to point to a universe permitting such a union of insight and feeling as Spinoza has embodied for us in his memorable phrase—amor intellectualis Dei.

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A REALIST PHILOSOPHY OF LIFE

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A REALIST PHILOSOPHY OF LIFE

INTRODUCTORY.

I FIRST studied philosophy at Oxford during the years 1912-1914, where the prevalent philosophy was that of the English To this mode of thought I never took kindly, my Idealists. natural predilections tending in the direction of some form of Realism. Since, however, the modern realist revival was not at that time regarded with favour at Oxford, I took Greats as a realist of the Platonic type, and contended for the independent reality of universals, with particular reference to the forms of beauty, goodness and truth. When I had nothing more to fear from examiners, I threw in my lot with the modern realists, and in their train gradually advanced from a more or less naïve realism of the Meinong type, advocated in my first book Essays in Common Sense Philosophy, to the more extreme position known as neo-realism. During this stage, and, indeed, throughout my philosophical development, I was greatly influenced by the work of Bertrand Russell, to whom I owe more than to any other writer on philosophy.

Under his guidance I endeavoured to apply the principle of Occam's razor to the universe. I made it my business, that is to say, to discover the simplest elements into which knowledge and reality could be analysed and to dispense with whatever appeared to be resolvable into those elements. Proceeding on these lines, I succeeded, as a good realist should, in dispensing with both physical object and consciousness as entities existing in their own right, reducing the former to a series of sense data, and the latter to a collection of sensations and images. The analysis is by now familiar, and I do not wish to recapitulate it here. Suffice it to say that in the end I found myself, so far

as theory of knowledge went, able to accept and unable to go beyond the position adopted in Mr. Russell's The Analysis of Mind, and regarded myself as a cross-section of those neutral particulars or events, which Mr. Russell regards as the fundamental constituents of the universe. If I am asked in what sense such a position is a realistic one, my answer is that the sense data, the constituents into which the universe of objects is resolved, are in no way dependent for their existence upon being known. They are independent of mind, and are observed by mind.

But a philosophical banquet consisting of one course only, and that a course of logical atomism, is apt to prove a somewhat arid and unsubstantial form of diet, and other influences were at work which were destined to put a serious strain on the rigorous economy in the matter of constituents, which I had learned from the new realists. Try as I would to dispense with all but the barest essentials, I found that there were a number of additional conceptions which I simply could not get on without. The most important of these conceptions were, the notion of a vital force whose operations constituted the process known as evolution, and expressed themselves in all the variety and multiplicity of living organisms, and the belief that behind and beyond the change and diversity that characterized the world as known to biology and science there was a permanent, immutable something, outside the evolutionary process, because in some sense the goal of that process, and bearing a remarkable likeness to some at least of the forms of Plato's real world.

I was first attracted to a vitalistic outlook in the sphere of ethics, and in Common Sense Ethics contended for the decisive importance of irresponsible impulse as opposed to what is called rational desire in determining conduct. I subsequently endeavoured in Common Sense Theology to work out a vitalistic metaphysic, and to illustrate the conception of the life force by tracing its operations in a number of different departments of social and intellectual activity.

The life force and the form of beauty (for it was the nature of esthetic experience that chiefly drove me to admit a changeless

reality into my scheme of things) are strange inhabitants for a neo-realist's universe, and my chief difficulty has been, and still is, to accommodate them. Wield Occam's razor as I may, I cannot see my way to cut them off, and my task is, therefore, to fit them in as best I can. The following statement aims, accordingly, at rendering compatible a number of beliefs which, though frequently held by themselves, are rarely entertained in company. I am equipped with what seem to me insuperable objections to the abandonment of any one of these beliefs, yet I confess that the effort which I have made to synthesize them seems to me far from satisfactory.

The synthesis which I here offer is, therefore, provisional only, and I am not without hope that in course of time I may be able to effect it with greater economy. I will begin with the Vitalism as lending itself most easily to summary statement.

I. VITALISM.

The criticisms which have been levelled during the last twenty or thirty years against the mechanical conception of the universe have always seemed to me convincing.

That conception, backed as it was in the nineteenth century by all the contemporary sciences, received its chief support from biology and psychology. In biology the crucial question was the origin of variations. Darwin confessed himself unable to assign any cause for their occurrence; they seemed to be fortuitous, and in the present state of our knowledge must therefore be attributed to chance. Lamarck ascribed variations to the influence of external environment. Whether variations in species were held to be due to the gradual accumulation of very minute differences in individuals, or to the sudden emergence of "sports" or mutations, the upshot was the same. A process had been observed which, beginning with living specks in the scum of the intertidal shores, and ascending thence through the amœba. the mesozoic reptiles and the mammals, culminated in man. This process, on the mechanist view, was due not to the active interposition of any vital force or spiritual agency, but to pure

chance or to the influence of an external, material environment. In so far as the organic could be distinguished from the inorganic—and in the last resort they would probably be found to be indistinguishable—the latter at every stage conditioned and determined the former. If what happened to life, if the emergence of life itself, was not a mere fluke, it was nevertheless true that life was entirely at the mercy of the material forces which had brought it into being. In no sense was it creative.

What was true of life in general was equally true of life in the individual. The parallelist theory of psychology had announced a body and a mind differing in substance yet proceeding on parallel lines. Although there was no point of interaction, there was nevertheless between them an underlying connection, which ensured that for every event in the one there was a corresponding event in the other. It did not take the scientists long to discover that this underlying connection was nothing more nor less than a series of continuous miracles introduced to explain the otherwise inexplicable fact of correspondence between two entities distinguished by a radical difference in kind. Science having little patience with miracles roundly denied the difference. Body and mind did interact, but such interaction, if interaction it could be called, was a perfectly natural occurrence for which no explanation was necessary, since mind was only a rarefied form of body. In the course of the infinite permutations and combinations to which the forms of matter had been subjected, there had occurred one which resulted in matter becoming conscious of itself. This consciousness of self emerged when there occurred that peculiar arrangement of matter known as a brain. The mind was in fact an extension of the brain, envisaged as a sort of environing mist like the halo round the head of a saint. Its function was to mirror or register the events that occurred in the brain, and its activities were strictly confined to the performance of that function. Since it could not mirror what was not there, everything that happened in the mind must first have happened in the brain. Mind, that is to say, was not creative; it could not initiate anything on its own account; it was merely a reflector of cerebral occurrences. Since what happened in the brain was the result of what had first happened in the body, and since what happened in the body was the result of some previous happening in the external environment, the chain of causation was complete. This causation proceeded always from the less living to the more; life was a mere offshoot of matter, mind of body. Contributory evidence as to the unimportance of life was afforded by the other sciences. Geology had enormously increased the age of the world, astronomy the size and spread of space, and in the vast immensities of geologic time and astronomic space, life seemed a tiny glow, flickering uncertainly, and doomed one day to ultimate extinction upon the only planet which had known it.

Thus on every side the material and brutal conditioned and determined the vital and spiritual. The universe was like the works of a gigantic clock. Somebody at some time or other had set the clock going, and thenceforward it proceeded to function indefinitely through the automatic interaction of its parts. In such a universe life is of supreme unimportance. Instead of being the key to reality, the conception in terms of which we are ultimately to interpret the rest, it appears as a merely temporary passenger across a fundamentally alien and hostile environment, doomed one day to finish its pointless journey with as little noise and significance as witnessed its beginning.

It is not my purpose here to enumerate even the main features of the evidence which has led to the gradual abandonment of this conception. In biology, in psychology, and in physics facts have come to light which appear to be inexplicable on the materialist hypothesis. On the biological side Bergson, Fabre, Driesch, Geley, and others have catalogued numerous phenomena taken from insect, animal, and vegetable life, for which mechanism is unable to account. The factors classically regarded as those which determine evolution, adaptation to environment, and survival of those who chance to be the fittest, fail for example to explain what is known as transformism, the metamorphoses undergone by the insect, and the more striking examples of mutation. At most these factors serve to explain the direction

taken by the movement of evolution at any given moment; what they cannot do is to account for the fact of the movement. Hence there is a growing disposition to interpret biological phenomena in a purposive sense. The salmon which swims up-stream to deposit spawn, the crab which grows a new leg to replace the one it has lost, the hydroid Antennularia which, when separated from its normal environment, transforms its structure by putting forth long feelers in the effort to find something to which it can adhere, behave not merely as mechanisms reacting to some external change, but as the instruments of some force which, acting through them, seeks to achieve a purpose by their agency.

If this is not the case, it seems impossible, as Bergson has pointed out, to explain why the movement of evolution should persist. A measure of adaptation to environment was achieved many thousands of years ago by creatures in comparison with whom the human being is, from the physical point of view, helpless, unprotected, and ridiculously complicated. Judged merely by success in maintaining life, many inferior organisms are better adapted than ourselves to the conditions of existence. Why, then, did not evolution stop at their level? Why does life continue to complicate itself more dangerously in order to achieve physically inferior beings, whose bodily mechanisms are exposed by their complexity to an increased liability to mischance?

The question seems unanswerable, unless, indeed, we are prepared to agree that adaptation to environment is not the factor that determines variation, and to regard evolution as the process by which some vital force seeks to express itself in more varied and complicated forms, in order that it may through them achieve a higher and more complex order of life. But if this be so, life is not an incidental offshoot of matter, but an independent force working in and through matter, and moulding it to its ends.

The same conclusion emerges from an examination of the mechanist psychology. Mind, we are told, is a register of cerebral occurrences, a mere reflector of the brain; nothing can, therefore, happen in the mind which does not also happen in the brain. As against this conception there is on the experimental side a

mass of evidence produced by Bergson and others showing that people, whose brains have been impaired by accident or partially removed by an operation, are nevertheless capable of performing complicated mental processes. Feats of memory are exhibited by persons in whose heads the portion of the brain located as the seat of memory is occupied by a tumour; and phrenology, instead of being an exact science, remains a happy hunting-ground for quacks and charlatans.

On the theoretical side there are facts of psychology which seem unaccountable on even the most generous interpretation of mechanist principles. Omitting altogether the vexed question of memory, I will mention two instances as cases in point.

The first is drawn from a consideration of the emotions. The mechanist, true to the reflector conception, interprets emotion as an awareness of physiological changes. The James-Lange theory is invoked, and sorrow becomes our consciousness of the fact that we are crying.

This explanation seems to overlook the complexity of emotion and the subtle qualitative changes which distinguish one emotional state from another. To take a concrete case, it appears that the emotion of fear is in a special and intimate way connected with the adrenal gland. When fear is felt the adrenal gland excretes fluid. Is the fear an awareness of the excretion, or is the excretion consequent upon an emotion of fear excited by mental awareness of an external object? If our answer is that fear is the awareness of, let us say, an x quantity of excretion, more fear of the same kind will be caused by 2x excretion and less fear by $\frac{1}{2}x$. But fear shades by imperceptible degrees into a number of qualitatively different though allied emotions, into disgust, repulsion, and horror, between any pair of which as well as between each and fear proper there are again an infinite number of qualitatively different states. What is the physiological equivalent for these varying states? Certainly not x + 2x or $x - \frac{1}{2}x$, since these physiological equivalents are already earmarked for more fear or for less. Since the fear gland will not fill the bill, we shall have to invoke the excretions of some other gland. This conclusion involves a separate gland

for each qualitatively different emotion. But this assuredly is unduly to complicate the body. The differences in shades of emotion may be infinite, but we cannot budget for an infinite number of glands, if only because the body, being spatially limited, could not contain them. Hence I conclude that though the gland excretion may accompany fear, it is not the sole cause of it; nor are we necessarily to suppose that there is a similar physiological accompaniment for every psychological change.

The second point is really an extension of the first. If mind be but a form of matter, moulded and conditioned by matter in every particular, all mental changes must be ultimately expressible in terms not only of physiological, but of physical changes; they must, that is to say, be ultimately reducible to rearrangements of negative electrons and positive nuclei. Such rearrangements are quantitative only; they cannot, that is to say, account for the emergence of qualities new in kind. Yet mental characteristics as compared with material ones do seem to exhibit a qualitative difference. Matter, for example, can be weighed; yet who can weigh the inspiration which produced a Shelleyan lyric? Matter is a curvature in space-time; yet how are we to think of mind as spatial?

These difficulties are not decreased by modern developments in physics. The mechanist theory requires us to suppose that mind is a configuration of matter, that matter can in fact produce mind. Such a conception was easy fifty years ago. Matter was then a hard, tangible something upon which the horse-sense of the materialist could base his irrefragable convictions. To-day matter is more mysterious and elusive. Mind as a reflection of a solid, tangible something was at least a tenable conception, but the belief that a spatio-temporal configuration expressed in terms of point-instants is able to generate a consciousness of itself and to determine the workings of that consciousness puts a much greater strain upon our imaginative powers. modern tendency to interpret events in terms of mind rather than of matter is, therefore, the expression of a natural preference for working in terms of the comparatively known rather than in terms of the comparatively unknown.

It is not, of course, suggested that the arguments brought forward in this controversy are conclusive. It is indeed doubtful whether we can ever reach a satisfactory solution of the question whether mind determines matter or matter mind, so long as we proceed on the basis of a conception of matter and mind as distinct and separate entities. I shall return to this question in Section III. For the moment, however, I content myself with emphasizing the point that for me at least the arguments of the vitalists did on the whole carry the day. I agreed with Bergson in holding that mind action could not be interpreted wholly in terms of brain action, any more than the phenomena of life could be regarded solely as mere emanations of what was commonly called matter. On the contrary, I held, in the sphere of psychology, that the mental overflowed and contained the cerebral, and in biology, that, although material considerations might at any moment determine the direction and limit the thrust and push of evolutionary processes, they could not themselves be held to originate those processes. The facts of evolution and psychology were, therefore, to my mind at one in demanding the interposition of some vital or spiritual force acting in and through matter, and in some sense moulding and conditioning matter to serve its purpose.

II. PLURALISM.

So far I had been on comparatively familiar ground. With the exception of the last sentence of the preceding section, there was nothing in my position which might not have been found in Bergson, and indeed the line of thought along which I had travelled had been largely laid down by him. But at this point I encountered a difficulty. For Bergson the vital force was the only thing in the universe. It literally was the universe; and what was true of Bergson's élan vital was in this respect equally true of Schopenhauer's Will.

Now, my early training in realism had among other things imbued me with a wholesome distrust of the monistic Absolute of the English idealists, which made it impossible for me to accept

any universe which was regarded as an embodiment or an expression of one thing and of one thing only, whether that one thing was the Absolute or not, and my trouble was that the difficulties which I saw in the conception of the universe as a single intellectual unity applied equally strongly to the view of it as a single, indivisible vital force. I will try to state very briefly what these difficulties were.

The view of the universe with which the Hegelians present us is one which represents reality as a homogeneous whole or structure of thought. This reality underlies the world of appearances, and though it is manifested in each one of its appearances, it is not itself appearance, but reality. As such it embraces everything just because it is everything, and nothing can, therefore, exist which is not the Absolute. Since it is wholly present in each of its manifestations, these only appear as isolated and fragmentary parts of a whole to which they inalienably belong, and from which they are unreally distinguished, because of the partial character of the vision which we bring to bear upon them. Differences between things, therefore, are unreal in some sense in which their underlying unity is real, and this apparent unreality is the direct counterpart, indeed, it is in a sense the creation, of a limited and therefore unreal point of view.

Now, while the universe in its essential nature is an intellectual unity, it is agreed that the universe as it appears is nothing of the kind. I appear to be different from my neighbour, and my opinions appear to contradict his. An appearance of difference has, therefore, to be reconciled with the fact of real unity, and to me, at least, the Neo-Hegelian attempt to achieve this reconciliation has always failed to carry conviction.

How, I wanted to know, do these apparent differences arise? They are, we are told, the outcome of the partial view of reality taken by our finite understandings. But does this answer really meet the case? Differences are either real or they are illusory. If they are real, there is not one thing in the universe, but many things. If they are illusory, then the error we make in thinking them real is not illusory. It is not, that is to say, an unreal error but a real one. Error, then, is part of the real and the real is

the Absolute. But how can an Absolute in which perfect truth and perfect reality go hand in hand be saddled with the responsibility for the generation of real error? It is no more possible to account for the emergence of error out of a real which is perfect truth than it is for the emergence of difference out of a real which is perfect unity. And yet, as we have seen, either the difference is real or the error which makes it appear so.

It is precisely this difficulty which in varying forms insists on presenting itself whenever we try to conceive of reality monistically.

The universe, said Schopenhauer, is Will, and all the variety and multiplicity of the world of existence, from chairs and tables to living beings, and from living beings to the objects of æsthetic contemplation, are different forms of its objectification. The differences between them are as unreal as their appearance as separate and isolated entities; on a closer view they will be seen to be merely phenomenal expressions of an underlying unity. But if the unity is really a unity, how comes it to develop the differences which the expression of itself in various forms Even if the apparent multiplicity be merely phenoimplies? menal, the potentiality for its development must have qualified the initial unity, just as the potentiality for development into a chicken is a characteristic of the egg. Nor can we stop at the potentiality for developed difference. The Will does not merely objectify itself; it objectifies itself in certain ways and not in others. We must start, therefore, not merely with a bare Will, but with a Will initially qualified by the capacity for developing either particular kinds of differences, namely those which actually appear to exist in the world we know, or-for it comes to the same thing—the illusion of particular kinds of differences.

But what does this mean, if it does not mean that the unity is not a unity at all; that there already exist in an incapsulated form within it all the diversity and finite individualities which it subsequently generates, and that it is not, therefore, one thing but many things?

And now, to bring the argument nearer home, how are we to explain plurality, or the illusion of plurality on the basis of a

single vital stream or flow? For Bergson, matter, and the appearance of diversity and solidity that matter undoubtedly presents, are illusions due to the cuts made by the intellect across the living flow. But, proceeding as before, we shall point out that the *élan vital* is either in itself entirely featureless or it is not. If it is entirely featureless, then matter and diversity are real illusions; but illusions generated whence and by what means? If reality is not in any sense material but is pure becoming, then the pure becoming which is reality must be made to account for our illusion in thinking it matter. Reality, therefore, contains the seeds of error in itself. It is, therefore, a plurality. If, on the other hand, the differences be real and not illusory, if, that is to say, the real contains within itself some rudimentary flaws which the intellect works up into matter, reality is once again a plurality.

Schopenhauer and Bergson alike think of reality as a broad, flowing river, scattering and dispersing itself for certain special purposes into an infinite number of minute streams. Now, if there exists something which is not the river, but which interrupts the river, such dispersion can be readily understood. Rivers divide when they meet obstacles which split them as it were But neither Bergson nor Schopenhauer can have ab extra. recourse to this conception. For them the universe is the river; and there is, therefore, nothing to perform the work of division ab extra. There remains, therefore, no alternative but the conception of a river dividing itself as it were ab intra. But in that event it can no longer be conceived of as a homogeneous flow. Its appearance only is a true unity; its reality is a qualified unity which initially contains the seeds of division and plurality.

You cannot, in short, have it both ways. If reality, as monistic philosophers assert, is a whole or unity, such that nothing short of the whole is real, and anything that impairs the unity is illusory, then you cannot generate out of it variety, error, and multiplicity. If, on the other hand, you do not make the unity responsible for the emergence of variety, error, and multiplicity, then they must exist in some form side by side with the unity, equally real with it and in a sense opposed to it. But in that event the world

is not a complete unity. It must be assumed to be at least a duality, and to sustain not only the unity but some opposing principle other than the unity which causes the unity to break up and express itself in variety.

Once I was prepared to admit the existence of something other than the vital flow, it seemed possible to throw light upon a number of points which had previously been obscure.

I had never, for example, been able to understand why Schopenhauer's Will should take the trouble to objectify itself, or why Bergson's élan vital should be at pains to evolve the intellect. Why should they do these things, even if we were to assume that they could? If the universe was in the last resort nothing but a homogeneous flow, the whole process of evolution seemed motiveless. The vital flow, we were told, objectified and manifested itself in temporary individuals, which would in due course be re-absorbed into the all-embracing stream from which they sprang. But this ultimate absorption into the vital flow of all the variety and imperfection of the universe would be merely a reconstruction of the state of affairs which existed before the objectification took place. If, then, the end of the evolutionary process were identical with the beginning, if unity split itself into diversity merely in order that it might again achieve unity, the universe was either a meaningless joke or a vicious circle. Either conclusion was repugnant and reinforced the growing conviction that something more than the vital force was required.

A further difficulty had been the insistence of Vitalists on the comparatively unreal and insignificant character of individuality. Schopenhauer's Will objectified itself temporarily in individuals, but, since the Will was itself homogeneous and indivisible, its individual representations were in some sense illusory, a falsification of its real character. Yet a representation cannot owe the fact of its being to the presence in it of the real, without being endowed, so far at least as its innermost nature is concerned, with the same kind of reality as that which gives it life.

For all these reasons I was driven to the admission of some non-vital element into the Universe, a sort of brute $\tilde{\nu}\lambda\eta$ or

obstruction which stood, as it were, outside the stream of evolution, and with which the vital force came into collision. This brute substance, which for the present we will call matter, meeting the vital force, causes it to disperse and diversify itself into all the multitudinous forms of organic life, much as a line of rocks will break up and diversify a stream into innumerable channels. But, unlike the stream, which does not itself enter into the rocks, the vital force infuses with the principle of life the very matter which opposes it.

III. THE LIFE FORCE.

So much by way of preamble. Now let me attempt an essay in constructive speculation, admitting that what follows is pure hypothesis, yet at the same time insisting that there are no known facts with which it appears to be incompatible.

I conceive of the universe as being in the first instance purely It is chaos and deadness and blankness, without energy or purpose, and devoid of life. In this inorganic universe there appears a principle of life. At first blind and fumbling, a purely instinctive nisus or thrust, it struggles to express itself in the endeavour to achieve an ever higher degree of consciousness. With this object it works in and through matter, infusing and permeating it with its own principle of energy and life. The living beings that result from this infusion are to be regarded in the light of tools or weapons, which the life force creates for the accomplishment of its purpose. Like the universe itself, they are formed of a substratum of matter which has been animated by life, much as a length of wire may be charged with an electric current. In so far as we can at this stage endow the life force with conscious purpose, we may define that purpose as the endeavour to eliminate the material obstruction and to permeate the whole universe with life and consciousness.

The life force is far from being all powerful. It is limited and experimental, and its methods vary according to the stage of evolution which it has succeeded in reaching.

Different types of beings best serve its purposes at different

stages. Thus the mesozoic reptiles may be presumed to have passed from the evolutionary stage because they were not fitted to carry the current of life above the level which it had reached in them. Man is the latest evolutionary tool, but not for that reason the final one. If, as Mr. Shaw suggests, he can will to live longer, he may, like the Ancients in the last play of the Back to Methuselah Pentateuch, achieve a comparative emancipation from matter, which would constitute a real advance on his present condition. Short of this, however, we may in due course expect to see him consigned to the evolutionary scrap-heap, that he may make way for beings better adapted for carrying out life's next advance.

We must, I think, concede the fact that at present man is at best an inadequate and only spasmodically effective instrument. There is no reason to think that we are all of us for all our time fulfilling the purpose for which the life force created us. that were the case, the life force, which we should then have to endow with complete control over its creatures, would be possessed of just those attributes of omnipotence and all-pervasiveness against which, in the interests of pluralism, I have tried to argue. Nor indeed does it seem possible to explain all human activity as furthering to an equal extent the fulfilment of the evolutionary purpose, or as being the embodiment of an equally real and direct inspiration from the life force. It must not be forgotten that there is a substratum in all organic life which is infused with the life force, but which is not the life force. This acts as a distorting and obstructing medium, diminishing the force of the vital current that penetrates it, separating the current of life which is, as it were, temporarily located within it, from the main stream, and conferring upon it a measure of independence arising from that separation. Thus, the energy with which we act is that of the life force, but the direction in which we move is in a very real sense our own. It is to this fact, the fact that the sub stratum of matter of which we are composed interposes itself as a kind of barrier between ourselves and the main stream of life, that I attribute the emergence of individuality and the belief in free will. This belief, though not wholly illusory, seems

to be true in a negative rather than in a positive sense. Though created to serve the purposes of life, we can in a measure defeat those purposes by apathy and inertia. The material substratum which the life force has endeavoured to infuse may succeed in so completely overlaying the original impulse of life as to frustrate the purposes for which the instrument was created. Hence we get the imbecile, the ascetic, and the pervert. In so far as man is an expression of a dynamic and changing principle he changes, but he changes slowly and uncertainly, and he tends continually to lapse into inertia by settling into the rut of habit and normal behaviour.

In nothing is the limited character of the life force more clearly manifest, in nothing do we see more unmistakable evidence of the conflict and struggle in terms of which I interpret evolution, than in the devices which the life force adopts in order to improve the effectiveness of man, its latest form of expression. I have endeavoured, in Common Sense Theology, to describe in some detail these various evolutionary devices, together with the various forms of obstruction which they are designed to circumvent, but I omit them here as lying outside my immediate purpose. They are in the nature of details, with which each will fill in the main outline according to his personal views on such matters as the purpose of education, the object of law and institutions, the function of art and the criteria of æsthetic value. Upon two only of these devices I will briefly touch.

The first is the appearance of the phenomenon known as genius. The genius is sent into the world to give conscious expression to the instinctive purposes of the life force. He acts as a signpost, pointing the way to a higher level of thought, conduct, and aspiration than that which has been hitherto reached, and thus indicates the road along which humanity must travel. It follows that it is the business of the genius, in fact it is his raison d'être, violently and persistently to challenge the accepted categories of thought, canons of art, or rules of conduct current in his age. This challenge is bitterly resented at the time by men's natural disinclination to have their beliefs disturbed and their conduct questioned. Since, however, the message of the genius fore-

shadows and makes possible the next stage of evolutionary advance, the coming generation is found to accept and embrace his ideas as vigorously as its fathers opposed them. Hence the genius, who is usually starved or persecuted during his life time, is posthumously ennobled. Advances in thought and conduct are, in short, achieved after the model rather of De Vries' sudden mutations than of Darwin's accumulation of minute variations. Evolution in human beings seems for long periods to stagnate, and then to be suddenly jolted forward by that type of sport that we call a genius, for whose appearance nothing in the previous history of the race has prepared the way.

The other device to ensure advancement to which attention might be drawn is that of the unconscious. Modern psychology has rendered us familiar with the interpretation of human activity as the result of a push from behind, rather than of a pull from in front, and has shown to what extent actions previously attributed to conscious desire spring from unconscious impulse. We rarely know why we act or what we want, and the function of consciousness in the matter seems to be largely confined to the rôle of inventing false beliefs as to the objects of our desires. It does not, therefore, seem to be necessary for us to commit ourselves wholeheartedly either to the Freudian conception of the unconscious on the one hand, or to the Behaviourist reduction of psychological to physiological processes on the other, in order to make the very moderate admission that we know much less about the sources of our activity than we thought we did, and to agree further that most of the things we do and desire are the result of the operation of some process within us of which we can give absolutely no rational account.

Having adopted this by no means extreme attitude as to the origin of psychological processes, I could not help being struck by the extent to which it harmonized with my general conception of the life force and of the individual as a localized current of the force. As I have hinted above, the individual appears to possess a measure of free will; he can at least refrain from evolving as consistently and efficiently in the direction of achieving a higher level of thought and consciousness as, we

may suppose, the life force would desire. Hence the creation of the unconscious to act as a transmitting medium for those thrusts and intimations with which the force seeks to animate its creatures. From the unconscious, we are told, spring the creative impulses which express themselves in art, in literature, and in social and political activity; from the unconscious come the incentive to effort, the spur to achievement and the impulse to seek a mate. The unconscious is, I conceive, that part of us which is in direct and continuous touch with the animating vital current. In it are originated those tendencies and impulses which subsequently appear in the conscious as motives deliberately entertained and desires rationally conceived. Thus the instinctive thrust and urge of life within us is transformed into conscious phenomena, such as beliefs, emotions and desires which we regard as the independent and inalienable creations of our own personalities, and proceed to carry out in action in the full conviction of the freedom and independence of our will. By this means the life force continually renews the stream of life within us, yet allows us to remain in ignorance of its source.

IV. NEO-REALISM.

I had reached this point in my endeavour to construct a working vitalistic hypothesis on the basis of a dualistic universe by pursuing a comparatively isolated line of thought. But there was another strand in my thinking owning a different source, which urgently demanded to be woven into the main structure. I was and had always been a realist: I accepted the conclusions of the modern realist theory of knowledge, and I was faced with the necessity of reconciling these conclusions with the position which I had reached as a vitalist. The task proved easier than might have been expected.

Let me begin by stating as briefly as possible what these conclusions were.

As a neo-realist I believed that physical objects were collections of sense data. These sense data were external, independent existences which our minds observed. I followed Mr. Russell

in holding that they could be further defined as the different appearances which the object would, if it existed, present to all possible points of observation. I held that these different appearances were correlated (1) by their similarity and (2) according to the laws of perspective, and that the object was a logical construction from the series of sense data so correlated. Hence, an aspect of a thing, or in other words the sense datum which is immediately experienced, was a member of the series of aspects which is the thing at any given moment.

I further held (1) that the sense data possessed only momentary existence, and (2) that, since the view of the world from any given place was slightly different from the view of the world from any other place, no two people ever saw precisely the same thing.

At the same time, I saw no reason at this stage for identifying the sense datum with the apprehension of it. The arguments (adduced for example by Dr. Moore in criticism of Idealism) for distinguishing the act of apprehension from the object apprehended seemed to me convincing in this respect. The act of direct apprehension was mental; the object, even if it were reduced to a series of sense data, differing for each observer and possessing a merely momentary existence, remained inalienably objective and non-mental.

So far all was well. My vitalism stood the test of my realism without difficulty, if only because the somewhat specialized question of what it is that we know, and what part the mind plays in the knowing of it, seemed scarcely relevant to the main issue in which I was interested. But the next development of neo-realist theory was one which I could not afford to ignore. I had all along maintained a fundamental dualism as the distinctive feature of my view of evolution, yet here was Mr. Russell in *The Analysis of Mind* running sensations and sense data together, and postulating a common subject matter out of which the data both of physics and psychology were constructed. With most of the views put forward in this book I found myself more than ready to agree. The Behaviourist standpoint with regard to desire, which interpreted it as the result of a push from behind rather than teleologically as a pull from in front, was

just what my notion of the life force as an electric current charging and animating the material moulds which were individuals seemed to require. We were, it seemed, rarely conscious of the objects of our desire, nor were we responsible for initiating the actions which were said to be in accordance with it. Desire, in fact, was the characteristic of a behaviour cycle of actions; its origin was a feeling of restlessness or discomfort, its object the state of quiescence which brought the behaviour cycle to its conclusion. What could be more consonant with the notion of a force moving its creatures by its promptings to the fulfilment of purposes of which they were ignorant?

The elimination of consciousness, moreover, as a distinct and isolable entity, a something, that is to say, apart from the experiences of which there was consciousness, pointed to the same conclusion. The life force did not form, as it were, a little vital pool in the individual, a localized and separated portion of itself, which constituted the essence of his personality. It animated him more or less continuously with a series of discrete vital shocks, each of which could be expressed in terms of an experience felt or an object known.

But Mr. Russell's assertion that mind and matter were merely different arrangements of the same fundamental stuff seemed at first sight difficult to reconcile with this view.

I cannot here detail the steps by which certain of the more extreme among the neo-realists have reached this conclusion as to the fundamental identity of substance in the universe. Modern developments in physics and psychology have no doubt played their part. Mr. Russell points out how matter has grown progressively less material while mind has grown progressively less mental. A physical object is a curvature in a four dimensional continuum; an idea, for all we know to the contrary, is simply a collection of movements in the larynx. The existence of mind is not explicitly denied, but it is shown to be at best an inference from bodily behaviour, an inference which, since we can get on without it, it is safer not to make.

Starting, then, from the notion of an object as the set of appearances presented to all possible points of observation, we

have to consider the nature of the appearances presented at the point of observation at which there is a mind. Mr. Russell uses, it will be remembered, the illustration of the appearance of a star at the place at which there is a photographic plate. This presentation is simultaneously a member of two different series. In the first place, it is a member of the series of the appearances presented by the apocryphal star at all possible points of observation, in which connection it is part of the star. In the second place, it is a member of the series of events which are happening at the place where the plate is. This series may be further defined as the sum-total of the appearances presented at the place where the plate is, and constitutes what we know as the plate.

It will be seen that the appearance of the star at the place where the plate is, is, according to the context in which it is taken. at one and the same time a part of the star and a part of the plate. Taken in one context it is a member of the series of appearances which are arranged together to form the star; taken in another it is a member of the series which are arranged together to form the plate. For plate read mind, and we have the conception of a mind as the sum-total of all the appearances presented it a certain place at which there is a brain with sense organs and nerves as the intervening medium. Every member of this series of events, which taken together constitute a mind, is a member of another series which taken together constitute an object. Sensations, therefore, are the same entities as sense data differently arranged. When we arrange together all the appearances presented at a certain place where there is a brain, we call them sensations; when we arrange together all the appearances presented by a so-called object at all places, we call them sense data. Sensations and sense data are, therefore, formed of the same fundamental stuff taken in different contexts. Russell envisages this stuff as a collection of neutral particulars. Arranged in one context they are mind, arranged in another they are matter, both mind and matter being, therefore, logical constructs from something more fundamental which underlies them both.

This assertion of a fundamental unity of substance seemed at first sight to cut right across the dualism for which I had been contending. I had felt myself unable to explain the facts of existence on the assumption that the universe was the infinitely diverse expression of one thing; yet the neo-realists had, to my mind, succeeded in showing how both the apparently mental and the apparently material could be regarded as different arrangements of the same stuff, and in so doing had turned the flank of the otherwise insoluble problem of the manner of their interaction.

But had the principle of difference been eliminated as effectually as at first sight appeared? The stuff admittedly was the same, but the differences of arrangement remained. And did my theory after all require more than this? The phenomena of the universe, as I understood them, were to be interpreted as the result of the infusion of a vital force into a fundamental non-living material. Was it necessary to postulate as the result of this infusion anything more than a certain highly specialized arrangement of the material? To revert once more to the metaphor of the electric current, what is it that happens when an electrical charge passes, for example, through a collection of steel filings? The filings do not change their substance; they alter their arrangement. They stand to attention as it were, and marshal themselves in a highly ordered sequence and array. Might not the particulars do the same? Might not what we call a mind be just that arrangement of the particulars which resulted from an infusion of the vital force? A mind as the neo-realist conceived it was not a special and unique form of existent. It was a meeting-place of objects, objects arranged together because they were presented at the same moment at a given place, with sense organs and nerves as the intervening medium. Its distinguishing mark, therefore, was not substance but form of arrangement. In precisely the same way the distinguishing mark of that section of the material universe which was animated by the life force would be not substance but form of arrangement. In this way it seemed possible to admit a unity of substance while retaining a duality of arrangement. Once granted the existence of the vital principle, there was nothing in the neo-realist theory of knowledge which was inconsistent with the assumption of its infusion into the stuff of which the universe was composed in order to form living organisms.

V. Teleology.

There remains one more element to be fitted into the framework I have tried to construct, and it is one for which I find it more difficult to make room than for any of the others. The history of philosophy bears witness to the attempt to interpret the universe as an expression of one or other of two opposing principles, that of change and that of perfection. To the principle of change I have done more than justice; but to that of perfection I have hitherto made no acknowledgment.

It is, however, no uncommon thing for philosophers, even of the most empirical tendencies, to find themselves unable to withstand the temptation to introduce some element of permanent and immutable being into their universes, and I confess myself of their number. "'That which is' cannot become less, nor can it become more than itself." "Ex nihilo nihil, in nihilum nihil posse reverti." These and many other remarks of a similar character bear witness to the hold of Parmenides' conception of a changeless universe over the philosophic imagination.

It is to the phenomena of æsthetic appreciation and to the peculiar character of the objects of mathematics that philosophers have in the main had recourse when seeking to find the type of that which was at once permanent and perfect in the universe. The form of beauty and the characteristics of numbers play the leading parts in Plato's theory of ideas; Aristotle informs us that the occupation of the deity is continuous reflection upon geometrical problems; and that similar views are not held to be inconsistent with a vitalistic outlook upon what I may call the world of appearance, the special significance accorded by Schopenhauer to music, and the pursuits attributed to his Ancients by Mr. Shaw in the last play of the Back to Methuselah Pentateuch, bear sufficient witness.

The case of Shaw's Ancients is particularly pertinent. the ultimate stage of evolution the power of life over matter has reached a point at which life achieves complete emancipation from the material mould into which it has infused itself. A living creature is then described as a vortex whose sole occupation is thought. "I brought life into the whirlpool of force, and compelled my enemy, Matter, to obey a living soul," says Lilith, and the process of evolution is described as one in which a world which began as "a whirlpool in pure force" becomes "a whirlpool in pure intelligence." But the intelligence has still an object, the Ancients following Aristotle's deity in commending the young to "leave women and study mathematics." The necessity for a more or less permanent object which thought may study is felt, therefore, in even the most vitalistic philosophies, and it is felt most keenly, as I have suggested, in connection with the demands of æsthetic experience and the nature of mathematics.

For me this quality of permanence in the universe intruded itself most plainly in connection with æsthetic experience. I had been impressed at an early stage by Plato's conception of the form of beauty, and in particular by his account in the Symposium of the nature of the sudden apprehension of the form. This is no place to recount the arguments for Plato's theory. Let it suffice that, for me, it issued in the general view that æsthetic experience was a process of discovery rather than of expression, and pointed always to something behind or beyond the immediate object of the experience, to which the mind penetrated through the experience.

It was in connection with music more especially that this view seemed most insistent. The difference between music and the other arts has always appeared to me far more striking than the likeness, and it is a difference which the current use of the all-embracing terms "art" and "æsthetics" very largely obscures. Literature was for me in essence didactic. It was an expression on the part of the life force of the urge to rise to a higher level of thought and consciousness, and the great writers, teachers, and preachers of the world were those whose function it was to point the way to this next level of evolutionary advance.

They were thus in a special and peculiar sense the repositories of a message from the life force, a message to which we give the name of inspiration. Even poetry was but a device to ensure attention for and acceptance of the message, by clothing it in a form which pleased. The poets said always the same thing as the teachers who had preceded them, but they said it better and men listened.

Literature, including poetry, was, therefore, an expression of the inspiration of the life force. It belonged to the world of change; it was part of the evolutionary process, and its value was relative to its ability to serve the purpose for which it was created. In other words, its value depended on the acceptance of its meaning.

The character of music was different. As opposed to literature, it had no meaning, and its value could not, therefore, depend either upon its success in conveying meaning or upon the newness of the meaning it conveyed. It announced a phrase, pregnant with the possibilities of development, and then, in accordance with laws derived from and imposed by itself, expanded and developed it on lines which were intuitively recognized to be inevitable. Music thus inhabited a world of its own, in terms of which alone its standards were valid and its meaning intelligible. Consequently it did not depend for its appeal upon our experience of this world, nor upon its capacity to evoke emotional reminiscences of our past. Experience of life, necessary for the appreciation of literature, is irrelevant to the comprehension of music, and for this reason a child can enjoy and create music as well as an adult. It is indeed significant that music, chess, and mathematics are the special provinces of the infant prodigy, excellence in these spheres depending not upon a content of emotional experience derived from fullness of life, but upon the capacity for perceiving intuitively the intellectual rightness of The musician and the mathematician certain combinations. inhabit a world containing a significance of its own, which has no counterpart in everyday life, a world which they are privileged to enter in virtue of some special gift of memory or of insight. This I take to be the meaning of Schopenhauer's remark that, if

the visible and sensible worlds were swept away, music would still remain, and, since the emotion of the mathematician solving a problem seems strictly comparable to the enjoyment of a Bach fugue, we may place mathematics with music as inhabitants of Schopenhauer's real world.

Music, then, is not representative of life; the emotions it evokes are not those of life, and the significance of its combinations derives no validity from and owns no source in our experience. Of what then is it significant? Before attempting to answer this question, let me turn for a moment to painting. Painting, less pure than music, is cursed by the representative tradition. Although its object is the same, namely the creation of significant combinations, the prevalent belief that paintings should be of something, and the difficulty of producing pictures which do not contain some element of representation, make it harder for the graphic arts to divorce themselves from the world of appearance. The object of art is, as I conceive it, to transport the soul into another world, and this object is not to be achieved by photographing this one. Yet the artist has usually found it necessary to depict actual objects and scenes through the medium of which the significant form may be disentangled from the overlying material which distorts and obscures it. It is, nevertheless, his object to create æsthetic emotion by representing forms which, like the combinations of music, possess a special significance of their own.

Now what is this significance that lies behind pure form and in æsthetic appreciation can thrill to ecstasy? I conceive it to be that which characterizes and belongs to the real world of forms, real, that is to say, in Plato's sense of the word, which underlies the world of appearance and endows objects of art and combinations of sound with such beauty as they possess. And I further conceive it to be the business of the artist, first to disentangle these forms from the sensuous material which overlays and distorts them, and secondly by so doing to turn the eye of the soul, again in Plato's language, to the contemplation of the reality.

In the Symposium Plato describes the process by which the

soul comes to apprehend the form of beauty. It is a process in which several stages are discernible. The first stage consists in the appreciation of the beauty of persons and sensible objects. In this stage we recognize the beauty of a particular person or thing, and notice that this same element of beauty is common to many persons. In the second stage we ascend to the perception of abstract beauty in morals, laws and sciences. We are enabled to disentangle the abstract beauty in things from the material embodiment in which it appears. In the third stage, and only in the third, we obtain a vision of the form of beauty itself. processes described in stages (1) and (2) are those through which the soul must of necessity pass before the third stage is reached, and for this reason they may be regarded as leading up to the third stage. They are, nevertheless, logically divorced from The third stage involves the realization of something that is entirely new; it is a sudden and immediate apprehension of the form of beauty, an apprehension which is described by Plato in the terms of a mystical vision.

Now all these stages, with the exception of the last, are exemplified in our experience of the æsthetic emotion aroused by painting and music. But music, which is exempt from the outset from the necessity of representing material objects, starts, as it were, higher up the scale than painting. It also advances to a higher stage. Art, as I conceive it, is propædeutic to the study of reality; it gradually lifts the soul through a presentation of the beauty in the appearances of material objects to a place from which it can discern the reality that underlies the appearances. Yet there are times when the artist has been able to dispense with the ladder on whose rungs he has climbed, and to present a clear vision of the form divested of material embodiment. There are places, that is to say, in music, notably in the sonatas and quartets of the last Beethoven period, where the composer seems, as it were, to break through and to commune directly with the real world. On these rare occasions the artist is for the moment on a level with the mystic. The mystic may be described as one who attains, without the aid of visible or audible symbols, to that vision of the real which the artist can

only hope at best to present through material forms. He contemplates directly with the mind that which the artist dimly discerns through the medium of his senses, and enables us to glimpse in his pictures or his music. Art is, therefore, propædeutic to mysticism, and the level of the mystic is above that of the artist. The mystic's vision is the final one of Plato's account in the Symposium, and it is a vision to the directness of which the artist rarely, if ever, attains. When I speak of the directness of the mystic's vision, I mean that it is direct in the sense in which that of the artist, which discerns the changeless in the material setting of the changing, is indirect. And because of this directness in the mystic's contemplation of the changeless, his vision achieves a degree of permanence and security which is beyond the reach of purely æsthetic experience.

How does this acknowledgment of a changeless element in the universe and of its effect upon the mind harmonize with the system of vitalism outlined above? The facts of life and of psychology I have endeavoured to interpret as the expression of an evolutionary force, the outcome of a push from behind, and literature and poetry have been subsumed under this general conception. Yet for the facts of æsthetic experience I am invoking a new and, in a sense, a contrary principle, by interpreting their significance teleologically as due to the pull exercised by a desired goal which lies in front. How are these contrary explanations to be reconciled?

The life force, as I have suggested, is limited and experimental. It works in an alien environment composed of the intractable stuff of which the Universe is made, and it struggles towards an ever-increasing consciousness, seeking to subdue matter to itself and infuse the whole Universe with life. Since it was to the existence of matter that we were led to attribute the dispersion of the life force into separate streams, and its objectification in different individuals, we may suppose that when the goal is reached and the material obstruction is eliminated, the distinction between individual forms of life will disappear. Life in this final stage may be likened to a sea of consciousness divested of the necessity of objectifying itself in individual forms. The elimina-

tion of the obstruction constituted by matter, or rather its complete infusion with life, may thus be regarded as the primary object of evolution.

But, as a realist, I insist that consciousness must be directed upon something. There must be an object for life, or rather thought, to contemplate even in its final evolutionary stage, and, since I have already endeavoured to establish on other grounds the necessity for an element of permanence and perfection in the Universe, it must be upon this element that the contemplation of the life force in its ultimate stage of disembodied thought is directed. There can in fact be no other object. I conceive, then, as the second and final goal of evolution the complete and untrammelled contemplation by life of a perfect and immutable reality conceived after the model of Plato's forms. question whether there be one or many forms does not for our present purpose appear to be important; we may conceive of them as a plurality, or as a hierarchy subsumed under, and owing their being to a form of beauty, of truth, or of goodness, according to our predilections. The important point is that these objects of contemplation should not be identified with the thought of the universal consciousness which is directed upon them.

I further conceive that life in its earlier stages of development is unconscious of this ultimate purpose, but that at a certain evolutionary level there is emergent, to use Professor Lloyd Morgan's term, an awareness of the goal which the process of evolution is seeking to reach. Emerging at a comparatively late stage of evolutionary development, this awareness takes the form of an intimation of the nature of the permanent reality towards a complete consciousness of which the life force is struggling. Such intimations have been the special privilege and possession of mystics in all ages. Through them they have seemed to themselves to come most closely into touch with the underlying and permanent reality of the universe. The intimation, which for the mystic is a foreknowledge of the end, expresses itself for most of us in the æsthetic emotion which is aroused by the beautiful, or in other words by that which has

significant form. The special response evoked in us by significant form, a response which in virtue of its arbitrariness and its uniqueness calls insistently for metaphysical interpretation, is for me the expression of the nisus, again to use Professor Lloyd Morgan's language, towards the goal, a nisus which, occurring spasmodically in individuals, and varying from man to man and from age to age, is most clearly recognizable in the emotions of æsthetic experience. In the appreciation of music and of pictures we get a momentary and fleeting glimpse of the nature of that reality to a full knowledge of which the movement of life is progressing. For that moment, and for so long as the glimpse persists, we realize in anticipation and almost, as it were, illicitly the nature of the end. We are, if I may so put it, for the moment there, just as a traveller may obtain a fleeting glimpse of a distant country from an eminence passed on the way, and cease for a space from his journey to enjoy the view. And since we are for the moment there, we experience while the moment lasts that sense of liberation from the urge and drive of life, which has been noted as one of the special characteristics of æsthetic experience. We who are part and parcel of the evolutionary stream stand for the time outside and above the stream, and are permitted for a moment to be withdrawn from the thrust and play of impulse and desire, which are our natural attributes as evolutionary tools. For so long as we enjoy our vision of the end, the life force lets us alone. We feel neither need nor want, and, losing ourselves in contemplation of the reality beyond us, we become for the moment selfless. And it is of this I take it that Schopenhauer spoke, when he said that the Will uses the intellect always as its servant except in æsthetic contemplation. When we experience those significant combinations of forms or sounds to which we give the name of beautiful in art, our contemplation is Willless in its character. We cease for the moment to be individuals, mere tools of the Will, and take on a character of universality from the universal nature of that which we contemplate. form is pure universal, and he who would know it must in knowing partake of its nature.

But if, in æsthetic experience, we are like travellers resting

on our journey and refreshing ourselves with a view of the goal to which our steps are directed, we may not rest for long. The life force has created us for a purpose, and it cannot afford to have us dallying by the roadside. Indulgence in æsthetic experience is, from the point of view of the life force, a form of idling, a playing truant when we should be at school. "Biologically speaking," says Mr. Roger Fry, "art is a blasphemy. We were given our eyes to see things and not to look at them." Thus life takes care that at an early age we shall attain to a considerable ignorance of the visual appearance of objects. We see and we are meant to see only so much of them as serves the purposes of living. To see them whole and to see them round as the artist does, to see them above all as combinations of significant forms, is a kind of seeing for which those who are preoccupied with the business of living cannot afford the energy or the time.

The æsthetic apprehension is unconditioned by considerations of space and time, and unrelated to the purposes of life. For this reason we are not allowed to indulge it overmuch. And so, before we are even fully assured that the vision of beauty is ours, the life force catches us up and thrusts us back into the whirlpool of want and need, of striving, loving, and fearing which is life. To this circumstance we must attribute the fleeting and ephemeral nature of even the most lasting æsthetic experience; to this it owes its unsatisfactory and tantalizing character. There is no sky in June so blue that it does not point forward to a bauer: no sunset so beautiful that it does not awaken the thought of a greater beauty. The soul is at once gladdened and disappointed. The veil is lifted so quickly that we have scarcely time to know that it has gone before it is re-drawn. But during the moment of lifting we get a vision of a something behind and beyond which passes, before it is clearly seen, and which in passing leaves behind a feeling of indefinable longing and regret.

Only the mystic achieves a vision which is in any degree lasting, and for that vision he pays the inevitable price. By withdrawing himself more and more completely from the service of the life force, he dams the stream of life within himself, raising himself

to a vision of what is in front, only at the expense of cutting himself off from the animating force which is behind. The time is not yet for more than a fleeting glimpse of the end, and permanent withdrawal from the service of life leads to death.

I have tried in the above sketch to reconcile the teleological view which seems to me to be demanded by the facts of æsthetic and mystical experience, with the vitalist conception of the universe presented in the earlier sections. I am aware that the reconciliation is far from satisfactory, but I do not at the moment know how to better it.

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A DEFENCE OF COMMON SENSE

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A DEFENCE OF COMMON SENSE

In what follows I have merely tried to state, one by one, some of the most important points in which my philosophical position differs from positions which have been taken up by some other philosophers. It may be that the points which I have had room to mention are not really the most important, and possibly some of them may be points as to which no philosopher has ever really differed from me. But, to the best of my belief, each is a point as to which many have really differed; although (in most cases, at all events) each is also a point as to which many have agreed with me.

I. The first point is a point which embraces a great many other points. And it is one which I cannot state as clearly as I wish to state it, except at some length. The method I am going to use for stating it is this. I am going to begin by enunciating, under the heading (1), a whole long list of propositions, which may seem, at first sight, such obvious truisms as not to be worth stating: they are, in fact, a set of propositions, every one of which (in my own opinion) I know, with certainty, to be true. I shall, next, under the heading (2), state a single proposition which makes an assertion about a whole set of classes of propositions—each class being defined, as the class consisting of all propositions which resemble one of the propositions in (1) in a certain respect. (2), therefore, is a proposition which could not be stated, until the list of propositions in (1), or some similar list, had already been given. (2) is itself a proposition which may seem such an obvious truism as not to be worth stating: and it is also a proposition which (in my own opinion) I know, with certainty, to be true. But, nevertheless, it is, to the best of

my belief, a proposition with regard to which many philosophers have, for different reasons, differed from me; even if they have not directly denied (2) itself, they have held views incompatible with it. My first point, then, may be said to be that (2), together with all its implications, some of which I shall expressly mention, is true.

(I) I begin, then, with my list of truisms, every one of which (in my own opinion) I know, with certainty, to be true. The propositions to be included in this list are the following:—

There exists at present a living human body, which is my body. This body was born at a certain time in the past, and has existed continuously ever since, though not without undergoing changes; it was, for instance, much smaller when it was born, and for some time afterwards, than it is now. Ever since it was born, it has been either in contact with or not far from the surface of the earth; and, at every moment since it was born, there have also existed many other things, having shape and size in three dimensions (in the same familiar sense in which it has), from which it has been at various distances (in the familiar sense in which it is now at a distance both from that mantel-piece and from that book-case, and at a greater distance from the book-case than it is from the mantel-piece); also there have (very often, at all events) existed some other things of this kind with which it was in contact (in the familiar sense in which it is now in contact with the pen I am holding in my right hand and with some of the clothes I am wearing). Among the things which have, in this sense, formed part of its environment (i.e. have been either in contact with it, or at some distance from it, however great) there have, at every moment since its birth, been large numbers of other living human bodies, each of which has, like it, (a) at some time been born, (b) continued to exist for some time after birth, (c) been, at every moment of its life after birth, either in contact with or not far from the surface of the earth; and many of these bodies have already died and ceased to exist. But the earth had existed also for many years before my body was born; and for many of these years, also, large numbers of human bodies had, at every moment, been alive upon it; and many of these bodies had died and ceased to exist before it was born. Finally (to come to a different class of propositions), I am a human being, and I have, at different times since my body was born, had many different experiences, of each of many different kinds: e.g. I have often perceived both my own body and other things which formed part of its environment, including other human bodies; I have not only perceived things of this kind, but have also observed facts about them, such as, for instance, the fact which I am now observing, that that mantel-piece is at present nearer to my body than that book-case; I have been aware of other facts, which I was not at the time observing, such as, for instance, the fact, of which I am now aware, that my body existed yesterday and was then also for some time nearer to that mantel-piece than to that book-case; I have had expectations with regard to the future, and many beliefs of other kinds, both true and false; I have thought of imaginary things, and persons and incidents, in the reality of which I did not believe; I have had dreams: and I have had feelings of many different kinds. And, just as my body has been the body of a human being, namely myself, who has, during its life-time, had many experiences of each of these (and other) different kinds; so, in the case of very many of the other human bodies which have lived upon the carth, each has been the body of a different human being, who has, during the life-time of that body, had many different experiences of each of these (and other) different kinds.

(2) I now come to the single truism which, as will be seen, could not be stated except by reference to the whole list of truisms, just given in (1). This truism also (in my own opinion) I know, with certainty, to be true; and it is as follows:—

In the case of very many (I do not say all) of the human beings belonging to the class (which includes myself) defined in the following way, i.e. as human beings who have had human bodies, that were born and lived for some time upon the earth, and who have, during the life-time of those bodies, had many different experiences of each of the kinds mentioned in (1), it is true that each has frequently, during the life of his body, known, with regard to himself or his body, and with regard to some time

earlier than any of the times at which I wrote down the propositions in (I), a proposition corresponding to each of the propositions in (I), in the sense that it asserts with regard to himself or his body and the earlier time in question (namely, in each case, the time at which he knew it), just what the corresponding proposition in (I) asserts with regard to me or my body and the time at which I wrote that proposition down.

In other words what (2) asserts is only (what seems an obvious enough truism) that each of us (meaning by "us," very many human beings of the class defined) has frequently known, with regard to himself or his body and the time at which he knew it, everything which, in writing down my list of propositions in (1), I was claiming to know about myself or my body and the time at which I wrote that proposition down. I.e. just as I knew (when I wrote it down) "There exists at present a living human body which is my body," so each of us has frequently known with regard to himself and some other time the different but corresponding proposition, which he could then have properly expressed by, "There exists at present a human body which is my body"; just as I know "Many human bodies other than mine have before now lived on the earth," so each of us has frequently known the different but corresponding proposition "Many human bodies other than mine have before now lived on the earth"; just as I know "Many human beings other than myself have before now perceived, and dreamed, and felt," so each of us has frequently known the different but corresponding proposition "Many human beings other than myself have before now perceived, and dreamed, and felt"; and so on, in the case of each of the propositions enumerated in (1).

I hope there is no difficulty in understanding, so far, what this proposition (2) asserts. I have tried to make clear by examples what I mean by "propositions corresponding to each of the propositions in (1)." And what (2) asserts is merely that each of us has frequently known to be true a proposition corresponding (in that sense) to each of the propositions in (1)—a different corresponding proposition, of course, at each of the times at which he knew such a proposition to be true.

But there remain two points, which, in view of the way in which some philosophers have used the English language, ought, I think, to be expressly mentioned, if I am to make quite clear exactly how much I am asserting in asserting (2).

The first point is this. Some philosophers seem to have thought it legitimate to use the word "true" in such a sense, that a proposition which is partially false may nevertheless also be true; and some of these, therefore, would perhaps say that propositions like those enumerated in (1) are, in their view, true, when all the time they believe that every such proposition is partially false. I wish, therefore, to make it quite plain that I am not using "true" in any such sense. I am using it in such a sense (and I think this is the ordinary usage) that if a proposition is partially false, it follows that it is not true, though, of course, it may be partially true. I am maintaining, in short, that all the propositions in (1), and also many propositions corresponding to each of these, are wholly true; I am asserting this in asserting (2). And hence any philosopher, who does in fact believe, with regard to any or all of these classes of propositions, that every proposition of the class in question is partially false, is, in fact, disagreeing with me and holding a view incompatible with (2), even though he may think himself justified in saying that he believes some propositions belonging to all of these classes to be "true."

And the second point is this. Some philosophers seem to have thought it legitimate to use such expressions as, e.g., "The earth has existed for many years past," as if they expressed something which they really believed, when in fact they believe that every proposition, which such an expression would ordinarily be understood to express, is, at least partially, false; and all they really believe is that there is some other set of propositions, related in a certain way to those which such expressions do actually express, which, unlike these, really are true. That is to say, they use the expression "The earth has existed for many years past" to express, not what it would ordinarily be understood to express, but the proposition that some proposition, related to this in a certain way, is true; when all the time they

believe that the proposition, which this expression would ordinarily be understood to express, is, at least partially, false. I wish, therefore, to make it quite plain that I was not using the expressions I used in (1) in any such subtle sense. I meant by each of them precisely what every reader, in reading them, will have understood me to mean. And any philosopher, therefore, who holds that any of these expressions, if understood in this popular manner, expresses a proposition which embodies some popular error, is disagreeing with me and holding a view incompatible with (2), even though he may hold that there is some other, true, proposition which the expression in question might be legitimately used to express.

In what I have just said, I have assumed that there is some meaning which is the ordinary or popular meaning of such expressions as "The earth has existed for many years past." And this, I am afraid, is an assumption which some philosophers are capable of disputing. They seem to think that the question "Do you believe that the earth has existed for many years past?" is not a plain question, such as should be met either by a plain "Yes" or "No," or by a plain "I can't make up my mind," but is the sort of question which can be properly met by: "It all depends on what you mean by 'the earth' and 'exists' and 'years': if you mean so and so, and so and so, and so and so, then I do; but if you mean so and so, and so and so, and so and so, or so and so, and so and so, and so and so, or so and so, and so and so, and so and so, then I don't, or at least I think it is extremely doubtful." It seems to me that such a view is as profoundly mistaken as any view can be. Such an expression as "The earth has existed for many years past" is the very type of an unambiguous expression, the meaning of which we all understand. Any one who takes a contrary view must, I suppose, be confusing the question whether we understand its meaning (which we all certainly do) with the entirely different question whether we know what it means, in the sense that we are able to give a correct analysis of its meaning. The question what is the correct analysis of the proposition meant on any occasion (for, of course, as I insisted in defining (2), a different proposition is meant at every different time at which the expression is used) by "The earth has existed for many years past" is, it seems to me, a profoundly difficult question, and one to which, as I shall presently urge, no one knows the answer. But to hold that we do not know what, in certain respects, is the analysis of what we understand by such an expression, is an entirely different thing from holding that we do not understand the expression. It is obvious that we cannot even raise the question how what we do understand by it is to be analysed, unless we do understand it. So soon, therefore, as we know that a person who uses such an expression, is using it in its ordinary sense, we understand his meaning. So that in explaining that I was using the expressions used in (1) in their ordinary sense (those of them which have an ordinary sense, which is not the case with quite all of them), I have done all that is required to make my meaning clear.

But now, assuming that the expressions which I have used to express (2) are understood, I think, as I have said, that many philosophers have really held views incompatible with (2). And the philosophers who have done so may, I think, be divided into two main groups. A. What (2) asserts is, with regard to a whole set of classes of propositions, that we have, each of us, frequently known to be true propositions belonging to each of these classes. And one way of holding a view incompatible with this proposition is, of course, to hold, with regard to one or more of the classes in question, that no propositions of that class are true—that all of them are, at least partially, false; since if, in the case of any one of these classes, no propositions of that class are true, it is obvious that nobody can have known any propositions of that class to be true, and therefore that we cannot have known to be true propositions belonging to each of these classes. And my first group of philosophers consists of philosophers who have held views incompatible with (2) for this reason. They have held, with regard to one or more of the classes in question, simply that no propositions of that class are true. Some of them have held this with regard to all the classes in question; some only with regard to some of them. But, of

course, whichever of these two views they have held, they have been holding a view inconsistant with (2). B. Some philosophers, on the other hand, have not ventured to assert, with regard to any of the classes in (2), that no propositions of that class are true, but what they have asserted is that, in the case of some of these classes, no human being has ever known, with certainty, that any propositions of the class in question are true. That is to say, they differ profoundly from philosophers of group A, in that they hold that propositions of all these classes may be true; but nevertheless they hold a view incompatible with (2) since they hold, with regard to some of these classes, that none of us has ever known a proposition of the class in question to be true.

A. I said that some philosophers, belonging to this group, have held that no propositions belonging to any of the classes in (2) are wholly true, while others have only held this with regard to some of the classes in (2). And I think the chief division of this kind has been the following. Some of the propositions in (1) (and, therefore, of course, all propositions belonging to the corresponding classes in (2)) are propositions which cannot be true, unless some material things have existed and have stood in spatial relations to one another: that is to say, they are propositions which, in a certain sense, imply the reality of material things, and the reality of Space. E.g. the proposition that my body has existed for many years past, and has, at every moment during that time been either in contact with or not far from the earth, is a proposition which implies both the reality of material things (provided you use "material things" in such a sense that to deny the reality of material things implies that no proposition which asserts that human bodies have existed, or that the earth has existed, is wholly true) and also the reality of Space (provided, again, that you use "Space" in such a sense that to deny the reality of Space implies that no proposition which asserts that anything has ever been in contact with or at a distance from another, in the familiar senses pointed out in (1), is wholly true). But others among the propositions in (1) (and, therefore, propositions belonging to the corresponding classes in (2)), do not (at

least obviously) imply either the reality of material things or the reality of Space: e.g. the propositions that I have often had dreams, and have had many different feelings at different times. It is true that propositions of this second class do imply one thing which is also implied by all propositions of the first, namely that (in a certain sense) Time is real, and imply also one thing not implied by propositions of the first class, namely that (in a certain sense) at least one Self is real. But I think there are some philosophers, who, while denying that (in the senses in question) either material things or Space are real, have been willing to admit that Selves and Time are real, in the sense required. Other philosophers, on the other hand, have used the expression "Time is not real," to express some view that they held; and some, at least, of these have, I think, meant by this expression something which is incompatible with the truth of any of the propositions in (1)—they have meant, namely, that every proposition of the sort that is expressed by the use of "now" or "at present," e.g. "I am now both seeing and hearing" or "There exists at present a living human body," or by the use of a past tense, e.g. "I have had many experiences in the past," or "The earth has existed for many years," are, at least partially, false.

All the four expressions I have just introduced, namely "Material things are not real," "Space is not real," "Time is not real," "The Self is not real," are, I think, unlike the expressions I used in (I), really ambiguous. And it may be that, in the case of each of them, some philosopher has used the expression in question to express some view he held which was not incompatible with (2). With such philosophers, if there are any, I am not, of course, at present concerned. But it seems to me that the most natural and proper usage of each of these expressions is a usage in which it does express a view incompatible with (2); and, in the case of each of them, some philosophers have, I think, really used the expression in question to express such a view. All such philosophers have, therefore, been holding a view incompatible with (2).

All such views, whether incompatible with all of the proposi-

tions in (1), or only with *some* of them, seem to me to be quite certainly false; and I think the following points are specially deserving of notice with regard to them:—

- (a) If any of the classes of propositions in (2) is such that no proposition of that class is true, then no philosopher has ever existed, and therefore none can ever have held with regard to any such class, that no proposition belonging to it is true. other words, the proposition that some propositions belonging to each of these classes are true is a proposition which has the peculiarity, that, if any philosopher has ever denied it, it follows from the fact that he has denied it, that he must have been wrong in denying it. For when I speak of "philosophers" I mean, of course (as we all do), exclusively philosophers who have been human beings, with human bodies that have lived upon the earth, and who have at different times had many different experiences. If, therefore, there have been any philosophers, there have been human beings of this class; and if there have been human beings of this class, all the rest of what is asserted in (1) is certainly true too. Any view, therefore, incompatible with the proposition that many propositions corresponding to each of the propositions in (1) are true, can only be true, on the hypothesis that no philosopher has ever held any such view. It follows, therefore, that, in considering whether this proposition is true, I cannot consistently regard the fact that many philosophers, whom I respect, have, to the best of my belief, held views incompatible with it, as having any weight at all against it. Since, if I know that they have held such views, I am, ipso facto, knowing that they were mistaken; and, if I have no reason to believe that the proposition in question is true, I have still less reason to believe that they have held views incompatible with it: since I am more certain that they have existed and held some views, i.e. that the proposition in question is true, than that they have held any views incompatible with it.
- (b) It is, of course, the case that all philosophers who have held such views have repeatedly, even in their philosophical works, expressed other views inconsistent with them: i.e. no philosopher has ever been able to hold such views consistently.

One way in which they have betrayed this inconsistency, is by alluding to the existence of other philosophers. Another way is by alluding to the existence of the human race, and in particular by using "we" in the sense in which I have already constantly used it, in which any philosopher who asserts that "we" do so and so, e.g. that "we sometimes believe propositions that are not true," is asserting not only that he himself has done the thing in question, but that very many other human beings, who have had bodies and lived upon the earth, have done the same. The fact is, of course, that all philosophers have belonged to the class of human beings, which exists only if (2) be true: that is to say, to the class of human beings, who have frequently known propositions corresponding to each of the propositions in (1). In holding views incompatible with the proposition that propositions of all these classes are true, they have, therefore, been holding views inconsistent with propositions which they themselves knew to be true; and it was, therefore, only to be expected that they should sometimes betray their knowledge of such propositions. The strange thing is that philosophers should have been able to hold sincerely, as part of their philosophical creed, propositions inconsistent with what they themselves knew to be true; and yet, so far as I can make out, this has really frequently happened. My position, therefore, on this first point, differs from that of philosophers belonging to this group A, not in that I hold anything which they don't hold, but only in that I don't hold, as part of my philosophical creed, things which they do hold as part of theirs—that is to say propositions inconsistent with some which they and I both hold in common. But this difference seems to me to be an important one.

(c) Some of these philosophers have brought forward, in favour of their position, arguments designed to show, in the case of some or all of the propositions in (1), that no propositions of that type can possibly be wholly true, because every such proposition entails both of two incompatible propositions. And I admit, of course, that if any of the propositions in (1) did entail both of two incompatible propositions it could not be true. But it seems to me I have an absolutely conclusive argument to show

that none of them does entail both of two incompatible propositions. Namely this: All of the propositions in (1) are true; no true proposition entails both of two incompatible propositions; therefore, none of the propositions in (1) entails both of two incompatible propositions.

- (d) Although, as I have urged, no philosopher who has held with regard to any of these types of proposition, that no propositions of that type are true, has failed to hold also other views inconsistent with his view in this respect, yet I do not think that the view, with regard to any or all of these types, that no proposition belonging to them is true, is in itself a self-contradictory view, i.e. entails both of two incompatible propositions. On the contrary, it seems to me quite clear that it might have been the case that Time was not real, material things not real, Space not real, selves not real. And in favour of my view that none of these things, which might have been the case, is in fact the case, I have, I think, no better argument than simply this—namely, that all the propositions in (I) are, in fact, true.
- B. This view, which is usually considered a much more modest view than A, has, I think, the defect that, unlike A, it really is self-contradictory, i.e. entails both of two mutually incompatible propositions.

Most philosophers who have held this view, have held, I think, that though each of us knows propositions corresponding to some of the propositions in (I), namely to those which merely assert that I myself have had in the past experiences of certain kinds at many different times, yet none of us knows for certain any propositions either of the type (a) which assert the existence of material things or of the type (b) which assert the existence of other selves, beside myself, and that they also have had experiences. They admit that we do in fact believe propositions of both these types, and that they may be true: some would even say that we know them to be highly probable; but they deny that we ever know them, for certain, to be true. Some of them have spoken of such beliefs as "beliefs of Common Sense," expressing thereby their conviction that beliefs of this kind are very commonly entertained by mankind: but they are

convinced that these things are, in all cases, only believed, not known for certain; and some have expressed this by saying that they are matters of Faith, not of Knowledge.

Now the remarkable thing, which those who take this view have not, I think, in general duly appreciated, is that, in each case, the philosopher who takes it is making an assertion about "us"—that is to say, not merely about himself, but about many other human beings as well. When he says "No human being has ever known of the existence of other human beings," he is saying: "There have been many other human beings beside myself, and none of them (including myself) has ever known of the existence of other human beings." If he says: "These beliefs are beliefs of Common Sense, but they are not matters of knowledge," he is saying: "There have been many other human beings, beside myself, who have shared these beliefs, but neither I nor any of the rest has ever known them to be true." In other words, he asserts with confidence that these beliefs are beliefs of Common Sense, and seems often to fail to notice that. if they are, they must be true; since the proposition that they are beliefs of Common Sense, is one which logically entails propositions both of type (a) and of type (b); it logically entails the proposition that many human beings, beside the philosopher himself, have had human bodies, which lived upon the earth, and have had various experiences, including beliefs of this kind. This is why this position, as contrasted with positions of group A, seems to me to be self-contradictory. Its difference from A consists in the fact that it is making a proposition about human knowledge in general, and therefore is actually asserting the existence of many human beings, whereas philosophers of group A in stating their position are not doing this: they are only contradicting other things which they hold. It is true that a philosopher who says "There have existed many human beings beside myself, and none of us has ever known of the existence of any human beings beside himself," is only contradicting himself, if what he holds is "There have certainly existed many human beings beside myself" or, in other words, "I know that there have existed other human beings beside myself." But this, it

seems to me, is what such philosophers have in fact been generally doing. They seem to me constantly to betray the fact that they regard the proposition that those beliefs are beliefs of Common Sense, or the proposition that they themselves are not the only members of the human race, as not merely true, but certainly true; and certainly true it cannot be, unless one member, at least, of the human race, namely themselves, has known the very things which that member is declaring that no human being has ever known.

Nevertheless, my position that I know, with certainty, to be true all of the propositions in (1), is certainly not a position, the denial of which entails both of two incompatible propositions. If I do know all these propositions to be true, then, I think, it is quite certain that other human beings also have known corresponding propositions: that is to say (2) also is true, and I know it to be true. But do I really know all the propositions in (I) to be true? Isn't it possible that I merely believe them? or know them to be highly probable? In answer to this question, I think I have nothing better to say than that it seems to me that I do know them, with certainty. It is, indeed, obvious that, in the case of most of them, I do not know them directly: that is to say, I only know them because, in the past, I have known to be true other propositions which were evidence for them. If, for instance. I do know that the earth had existed for many years before I was born, I certainly only know this because I have known other things in the past which were evidence for it. And I certainly do not know exactly what the evidence was. all this seems to me to be no good reason for doubting that I do know it. We are all, I think, in this strange position that we do know many things, with regard to which we know further that we must have had evidence for them, and yet we do not know how we know them, i.e. we do not know what the evidence was. If there is any "we," and if we know that there is, this must be so: for, that there is a "we," is one of the things in question. And that I do know that there is a "we," that is to say, that many other human beings, with human bodies, have lived upon the earth, it seems to me that I do know, for certain.

If this first point in my philosophical position, namely my belief in (2), is to be given any name, which has actually been used by philosophers in classifying the positions of other philosophers, it would have, I think, to be expressed by saying that I am one of those philosophers who have held that the "Common Sense view of the world" is, in certain fundamental features, wholly true. But it must be remembered that, according to me, all philosophers, without exception, have agreed with me in holding this: and that the real difference, which is commonly expressed in this way, is only a difference between those philosophers, who have also held views inconsistent with these features in "the Common Sense view of the world," and those who have not.

The features in question (namely, propositions of any of the classes defined in defining (2)) are all of them features, which have this peculiar property—namely, that if we know that they are features in the "Common Sense view of the world," it follows that they are true: it is self-contradictory to maintain that we know them to be features in the Common Sense view, and that yet they are not true; since to say that we know this, is to say that they are true. And many of them also have the further peculiar property that, if they are features in the Common Sense view of the world (whether "we" know this or not), it follows that they are true, since to say that there is a "Common Sense view of the world," is to say that they are true. The phrases "Common Sense view of the world" or "Common Sense beliefs" (as used by philosophers) are, of course, extraordinarily vague; and, for all I know, there may be many propositions which may be properly called features in "the Common Sense view of the world" or "Common Sense beliefs," which are not true, and which deserve to be mentioned with the contempt with which some philosophers speak of "Common Sense beliefs." But to speak with contempt of those "Common Sense beliefs" which I have mentioned is quite certainly the height of absurdity. And there are, of course, enormous numbers of other features in "the Common Sense view of the world" which, if these are true. are quite certainly true too: e.g. that there have lived upon

the surface of the earth not only human beings, but also many different species of plants and animals, etc., etc.

II. What seems to me the next in importance of the points in which my philosophical position differs from positions held by some other philosophers, is one which I will express in the following way. I hold, namely, that there is no good reason to suppose either (A) that every physical fact is logically dependent upon some mental fact or (B) that every physical fact is causally dependent upon some mental fact. In saying this, I am not, of course, saying that there are any physical facts which are wholly independent (i.e. both logically and causally) of mental facts: I do, in fact, believe that there are; but that is not what I am asserting. I am only asserting that there is no good reason to suppose the contrary; by which I mean, of course, that none of the human beings, who have had human bodies that lived upon the earth, have, during the life-time of their bodies, had any good reason to suppose the contrary. Many philosophers have, I think, not only believed either that every physical fact is logically dependent upon some mental fact ("physical fact" and "mental fact" being understood in the sense in which I am using these terms) or that every physical fact is causally dependent upon some mental fact, or both, but also that they themselves had good reason for these beliefs. In this respect, therefore, I differ from them.

In the case of the term "physical fact," I can only explain how I am using it by giving examples. I mean by "physical facts," facts like the following: "That mantel-piece is at present nearer to this body than that book-case is," "The earth has existed for many years past," "The moon has at every moment for many years past been nearer to the earth than to the sun," "That mantel-piece is of a light colour." But, when I say "facts like these," I mean, of course, facts like them in a certain respect; and what this respect is, I cannot define. The term "physical fact" is, however, in common use; and I think that I am using it in its ordinary sense. Moreover, there is no need for a definition to make my point clear; since among the

examples I have given, there are some with regard to which I hold that there is no reason to suppose *them* (i.e. these particular physical facts) either logically or causally dependent upon any mental fact.

"Mental fact," on the other hand, is a much more unusual expression, and I am using it in a specially limited sense, which, though I think it is a natural one, does need to be explained. There may be many other senses in which the term can be properly used. But I am only concerned with this one; and hence it is essential that I should explain what it is.

There may, possibly, I hold, be "mental facts" of three different kinds. It is only with regard to the first kind that I am sure that there are facts of that kind; but if there were any facts of either of the other two kinds, they would be "mental facts" in my limited sense, and therefore I must explain what is meant by the hypothesis that there are facts of those two kinds.

- (a) My first kind is this. I am conscious now; and also I am seeing something now. These two facts are both of them mental facts of my first kind; and my first kind consists exclusively of facts which resemble one or other of the two in a certain respect.
- (a) The fact that I am conscious now is obviously, in a certain sense, a fact, with regard to a particular individual and a particular time, to the effect that that individual is conscious at that time. And every fact which resembles this one in that respect is to be included in my first kind of mental fact. Thus the fact that I was also conscious at many different times yesterday is not itself a fact of this kind: but it entails that there are (or. as we should commonly say, because the times in question are past times, "were") many other facts of this kind, namely each of the facts, which, at each of the times in question, I could have properly expressed by "I am conscious now." Any fact which is, in this sense, a fact with regard to an individual and a time (whether the individual be myself or another, and whether the time be past or present), to the effect that that individual is conscious at that time, is to be included in my first kind of mental fact: and I call such facts, facts of class (a).

 (β) The second example I gave, namely the fact that I am seeing something now, is obviously related to the fact that I am conscious now in a peculiar manner. It not only entails the fact that I am conscious now (for from the fact that I am seeing something it follows that I am conscious: I could not have been seeing anything, unless I had been conscious, though I might quite well have been conscious without seeing anything) but it also is a fact, with regard to a specific way (or mode) of being conscious, to the effect that I am conscious in that way: in the same sense in which the proposition (with regard to any particular thing) "This is red" both entails the proposition (with regard to the same thing) "This is coloured," and is also a proposition, with regard to a specific way of being coloured, to the effect that that thing is coloured in that way. And any fact which is related in this peculiar manner to any fact of class (a), is also to be included in my first kind of mental fact. and is to be called a fact of class (β) . Thus the fact that I am hearing now, is, like the fact that I am seeing now, a fact of class (β) ; and so is any fact, with regard to myself and a past time, which could at that time have been properly expressed by "I am dreaming now," "I am imagining now," "I am at present aware of the fact that . . ." etc., etc. In short, any fact, which is a fact with regard to a particular individual (myself or another), a particular time (past or present), and any particular kind of experience, to the effect that that individual is having at that time an experience of that particular kind, is a fact of class (β) : and only such facts are facts of class (β) .

My first kind of mental facts consists exclusively of facts of classes (a) and (β), and consists of *all* facts of either of these kinds.

(b) That there are many facts of classes (a) and (β) seems to me perfectly certain. But many philosophers seem to me to have held a certain view with regard to the analysis of facts of class (a), which is such that, if it were true, there would be facts of another kind, which I should wish also to call "mental facts." I don't feel at all sure that this analysis is true; but it seems to me that it may be true; and since we can understand what is

meant by the supposition that it is true, we can also understand what is meant by the supposition that there are "mental facts" of this second kind.

Many philosophers have, I think, held the following view as to the analysis of what each of us knows, when he knows (at any time) "I am conscious now." They have held, namely, that there is a certain intrinsic property (with which we are all of us familiar and which might be called that of "being an experience") which is such that, at any time at which any man knows "I am conscious now," he is knowing, with regard to that property and himself and the time in question, "There is occurring now an event which has this property (i.e. 'is an experience') and which is an experience of mine," and such that this fact is what he expresses by "I am conscious now." And if this view is true, there must be many facts of each of three kinds, each of which I should wish to call "mental facts"; viz. (1) facts with regard to some event, which has this supposed intrinsic property, and to some time, to the effect that that event is occurring at that time, (2) facts with regard to this supposed intrinsic property and some time, to the effect that some event which has that property is occurring at that time, and (3) facts with regard to some property, which is a specific way of having the supposed intrinsic property (in the sense above explained in which "being red" is a specific way of "being coloured") and some time, to the effect that some event which has that specific property is occurring at that time. Of course, there not only are not, but cannot be, facts of any of these kinds, unless there is an intrinsic property related to what each of us (on any occasion) expresses by "I am conscious now," in the manner defined above; and I feel very doubtful whether there is any such property; in other words, although I know for certain both that I have had many experiences, and that I have had experiences of many different kinds, I feel very doubtful whether to say the first is the same thing as to say that there have been many events, each of which was an experience and an experience of mine, and whether to say the second is the same thing as to say that there have been many events, each of which was an experience of mine, and each

of which also had a different property, which was a specific way of being an experience. The proposition that I have had experiences does not necessarily entail the proposition that there have been any events which were experiences; and I cannot satisfy myself that I am acquainted with any events of the supposed kind. But yet it seems to me possible that the proposed analysis of "I am conscious now" is correct: that I am really acquainted with events of the supposed kind, though I cannot see that I am. And if I am, then I should wish to call the three kinds of facts defined above "mental facts." Of course. if there are "experiences" in the sense defined, it would be possible (as many have held) that there can be no experiences which are not some individual's experiences; and in that case any fact of any of these three kinds would be logically dependent on, though not necessarily identical with, some fact of class (a) or class (β) . But it seems to me also a possibility that, if there are "experiences," there might be experiences which did not belong to any individual; and, in that case, there would be "mental facts" which were neither identical with nor logically dependent on any fact of class (a) or class (β).

(c) Finally some philosophers have, so far as I can make out. held that there are or may be facts, which are facts with regard to some individual, to the effect that he is conscious, or is conscious in some specific way, which differ from facts of classes (a) and (B), in the important respect that they are not facts with regard to any time: they have conceived the possibility that there may be one or more individuals, who are timelessly conscious, and timelessly conscious in specific modes. And others, again, have. I think, conceived the hypothesis that the intrinsic property defined in (b) may be one which does not belong only to events, but may also belong to one or more wholes, which do not occur at any time: in other words, that there may be one or more timeless experiences, which might or might not be the experiences of some individual. It seems to me very doubtful whether any of these hypotheses are even possibly true; but I cannot see for certain that they are not possible: and, if they are possible, then I should wish to give the name "mental fact" to any fact

(if there were any) of any of the five following kinds, viz. (1) to any fact which is the fact, with regard to any individual, that he is timelessly conscious, (2) to any fact which is the fact, with regard to any individual, that he is timelessly conscious in any specific way, (3) to any fact which is the fact with regard to a timeless experience that it exists, (4) to any fact which is the fact with regard to the supposed intrinsic property "being an experience," which is the fact that something timelessly exists which has that property, and (5) to any fact which is the fact, with regard to any property, which is a specific mode of this supposed intrinsic property, that something timelessly exists which has that property.

I have then defined three different kinds of facts, each of which is such that, if there were any facts of that kind (as there certainly are, in the case of the first kind), the facts in question would be "mental facts" in my sense; and to complete the definition of the limited sense in which I am using "mental facts," I have only to add that I wish also to apply the name to one fourth class of facts: namely to any fact, which is the fact, with regard to any of these three kinds of facts, or any kinds included in them, that there are facts of the kind in question; i.e. not only will each individual fact of class (a) be, in my sense, a "mental fact," but also the general fact "that there are facts of class (a)," will itself be a "mental fact"; and similarly in all other cases: e.g. not only will the fact that I am now perceiving (which is a fact of class (β)) be a "mental fact," but also the general fact that there are facts, with regard to individuals and times, to the effect that the individual in question is perceiving at the time in question, will be a "mental fact."

A. Understanding "physical fact" and "mental fact" in the senses just explained, I hold, then, that there is no good reason to suppose that every physical fact is logically dependent upon some mental fact. And I use the phrase, with regard to two facts, F_r and F_2 , " F_r is logically dependent on F_2 ," wherever and only where F_r entails F_2 , either in the sense in which the proposition "I am seeing now" entails the proposition "I am conscious now," or the proposition (with regard to any particular

thing) "This is red" entails the proposition (with regard to the same thing) "This is coloured," or else in the more strictly logical sense in which (for instance) the conjunctive proposition "All men are mortal, and Mr. Baldwin is a man" entails the proposition "Mr. Baldwin is mortal." To say, then, of two facts, F_{τ} and F_{2} , that F_{τ} is not logically dependent upon F_{2} , is only to say that F_{τ} might have been a fact, even if there had been no such fact as F_{2} ; or that the conjunctive proposition " F_{τ} is a fact, but there is no such fact as F_{2} " is a proposition which is not self-contradictory, i.e. does not entail both of two mutually incompatible propositions.

I hold, then, that, in the case of some physical facts, there is no good reason to suppose that there is some mental fact, such that the physical fact in question could not have been a fact unless the mental fact in question had also been one. And my position is perfectly definite, since I hold that this is the case with all the four physical facts, which I have given as examples of physical facts. E.g. there is no good reason to suppose that there is any mental fact whatever, such that the fact that mantel-piece is at present nearer to my body than that book-case could not have been a fact, unless the mental fact in question had also been a fact; and, similarly, in all the other three cases.

In holding this I am certainly differing from some philosophers. I am, for instance, differing from Berkeley, who held that that mantel-piece, that book-case, and my body are, all of them, either "ideas" or "constituted by ideas," and that no "idea" can possibly exist without being perceived. He held, that is, that this physical fact is logically dependent upon a mental fact of my fourth class: namely a fact which is the fact that there is at least one fact, which is a fact with regard to an individual and the present time, to the effect that that individual is now perceiving something. He does not say that this physical fact is logically dependent upon any fact which is a fact of any of my first three classes, e.g. on any fact which is the fact, with regard to a particular individual and the present time, that that individual is now perceiving something: what he does say is that the physical fact couldn't have been a fact, unless it had

been a fact that there was some mental fact of this sort. And it seems to me that many philosophers, who would perhaps disagree either with Berkeley's assumption that my body is an "idea" or "constituted by ideas," or with his assumption that "ideas" cannot exist without being perceived, or with both, nevertheless would agree with him in thinking that this physical fact is logically dependent upon some "mental fact": e.g. they might say, that it could not have been a fact, unless there had been, at some time or other, or, were timelessly, some "experience." Many, indeed, so far as I can make out, have held that every fact is logically dependent on every other fact. And, of course, they have held in the case of their opinions, as Berkeley did in the case of his, that they had good reasons for them.

B. I also hold that there is no good reason to suppose that every physical fact is causally dependent upon some mental fact. By saying that F, is causally dependent on F2, I mean only that F, wouldn't have been a fact unless F2 had been; not (which is what "logically dependent" asserts) that F, couldn't conceivably have been a fact, unless F2 had been. And I can illustrate my meaning by reference to the example which I have just given. The fact that that mantel-piece is at present nearer to my body than that book-case, is (as I have just explained) so far as I can see, not logically dependent upon any mental fact; it might have been a fact, even if there has been no mental facts. But it certainly is causally dependent on many mental facts: my body would not have been here unless I had been conscious in various ways in the past; and the mantel-piece and the bookcase certainly would not have existed, unless other men had been conscious too.

But with regard to two of the facts, which I gave as instances of physical facts, namely the fact that the earth has existed for many years past, and the fact that the moon has for many years past been nearer to the earth than to the sun, I hold that there is no good reason to suppose that these are causally dependent upon any mental fact. So far as I can see, there is no reason to suppose that there is any mental fact of which it could be truly said: unless this fact had been a fact, the earth would not have

existed for many years past. And in holding this, again, I think I differ from some philosophers. I differ, for instance, from those who have held that all material things were created by God, and that they had good reasons for supposing this.

III. I have just explained that I differ from those philosophers who have held that there is good reason to suppose that all material things were created by God. And it is, I think, an important point in my position, which should be mentioned, that I differ also from all philosophers who have held that there is good reason to suppose that there is a God at all, whether or not they have held it likely that he created all material things.

And similarly, whereas some philosophers have held that there is good reason to suppose that we, human beings, shall continue to exist and to be conscious after the death of our bodies, I hold that there is no good reason to suppose this.

IV. I now come to a point of a very different order.

As I have explained under I., I am not at all sceptical as to the truth of such propositions as "The earth has existed for many years past," "Many human bodies have each lived for many years upon it," i.e. propositions which assert the existence of material things: on the contrary, I hold that we all know, with certainty, many such propositions to be true. But I am very sceptical as to what, in certain respects, the correct analysis of such propositions is. And this is a matter as to which I think I differ from many philosophers. Many seem to hold that there is no doubt at all as to their analysis, nor, therefore, as to the analysis of the proposition "Material things have existed," in certain respects in which I hold that the analysis of the propositions in question is extremely doubtful; and some of them, as we have seen, while holding that there is no doubt as to their analysis, seem to have doubted whether any such propositions are true. I, on the other hand, while holding that there is no doubt whatever that many such propositions are wholly true, hold also that no philosopher, hitherto, has succeeded in suggesting an analysis of them, as regards certain important points, which comes anywhere near to being certainly true.

It seems to me quite evident that the question how propositions of the type I have just given are to be analysed, depends on the question how propositions of another and simpler type are to be analysed. I know, at present, that I am perceiving a human hand, a pen, a sheet of paper, etc.; and it seems to me that I cannot know how the proposition "Material things exist" is to be analysed, until I know how, in certain respects, these simpler propositions are to be analysed. But even these are not simple enough. It seems to me quite evident that my knowledge that I am now perceiving a human hand is a deduction from a pair of propositions simpler still-propositions which I can only express in the form "I am perceiving this" and "This is a human hand." It is the analysis of propositions of the latter kind, which seems to me to present such great difficulties; while nevertheless the whole question as to the nature of material things obviously depends upon their analysis. It seems to me a surprising thing that so few philosophers, while saying a great deal as to what material things are and as to what it is to perceive them, have attempted to give a clear account as to what precisely they suppose themselves to know (or to judge, in case they have held that we don't know any such propositions to be true, or even that no such propositions are true) when they know or judge such things as "This is a hand," "That is the sun," "This is a dog," etc. etc. etc.

Two things only seem to me to be quite certain about the analysis of such propositions (and even with regard to these I am afraid some philosophers would differ from me) namely that whenever I know, or judge, such a proposition to be true, (1) there is always some sense-datum about which the proposition in question is a proposition—some sense-datum which is a subject (and, in a certain sense, the principal or ultimate subject) of the proposition in question, and (2) that, nevertheless, what I am knowing or judging to be true about this sense-datum is not (in general) that it is itself a hand, or a dog, or the sun, etc. etc., as the case may be.

Some philosophers have I think doubted whether there are any such things as other philosophers have meant by "sense-

data" or "sensa." And I think it is quite possible that some philosophers (including myself, in the past) have used these terms in senses, such that it is really doubtful whether there are any such things. But there is no doubt at all that there are sense-data, in the sense in which I am now using that term. I am at present seeing a great number of them, and feeling others. And, in order to point out to the reader what sort of things I mean by sense-data, I need only ask him to look at his own right hand. If he does this he will be able to pick out something (and, unless he is seeing double, only one thing) with regard to which he will see that it is, at first sight, a natural view to take that that thing is identical, not, indeed, with his whole right hand, but with that part of its surface which he is actually seeing, but will also (on a little reflection) be able to see that it is doubtful whether it can be identical with the part of the surface of his hand in question. Things of the sort (in a certain respect) of which this thing is, which he sees in looking at his hand, and with regard to which he can understand how some philosophers should have supposed it to be the part of the surface of his hand which he is seeing, while others have supposed that it can't be, are what I mean by "sense-data." I therefore define the term in such a way that it is an open question whether the sensedatum which I now see in looking at my hand and which is a sense-datum of my hand is or is not identical with that part of its surface which I am now actually seeing.

That what I know, with regard to this sense-datum, when I know "This is a human hand," is not that it is *itself* a human hand, seems to me certain because I know that my hand has many parts (e.g. its other side, and the bones inside it), which are quite certainly *not* parts of this sense-datum.

I think it certain, therefore, that the analysis of the proposition "This is a human hand" is, roughly at least, of the form "There is a thing, and only one thing, of which it is true both that it is a human hand and that this surface is a part of its surface." In other words, to put my view in terms of the phrase "theory of representative perception," I hold it to be quite certain that I do not directly perceive my hand; and that

when I am said (as I may be correctly said) to "perceive" it, that I "perceive" it means that I perceive (in a different and more fundamental sense) something which is (in a suitable sense) representative of it, namely, a certain part of its surface.

This is all that I hold to be certain about the analysis of the proposition "This is a human hand." We have seen that it includes in its analysis a proposition of the form "This is part of the surface of a human hand" (where "This," of course, has a different meaning from that which it has in the original proposition which has now been analysed). But this proposition also is undoubtedly a proposition about the sense-datum, which I am seeing, which is a sense-datum of my hand. And hence the further question arises: What, when I know "This is part of the surface of a human hand," am I knowing about the sensedatum in question? Am I, in this case, really knowing, about the sense-datum in question that it itself is part of the surface of a human hand? Or, just as we found in the case of "This is a human hand," that what I was knowing about the sense-datum was certainly not that it itself was a human hand, so, is it perhaps the case, with this new proposition, that even here I am not knowing, with regard to the sense-datum, that it is itself part of the surface of a hand? and, if so, what is it that I am knowing about the sense-datum itself?

This is the question to which, as it seems to me, no philosopher has hitherto suggested an answer which comes anywhere near to being *certainly* true.

There seem to me to be three, and only three, alternative types of answer possible; and to any answer yet suggested, of any of these types, there seem to me to be very grave objections.

(1) Of the first type, there is but one answer: namely, that in this case what I am knowing really is that the sense-datum itself is part of the surface of a human hand. In other words that, though I don't perceive my hand directly, I do directly perceive part of its surface; that the sense-datum itself is this part of its surface and not merely something which (in a sense yet to be determined) "represents" this part of its surface; and that hence the sense in which I "perceive" this part of the

surface of my hand, is not in its turn a sense which needs to be defined by reference to yet a third more ultimate sense of "perceive," which is the only one in which perception is direct, namely that in which I perceive the sense-datum.

If this view is true (as I think it may just possibly be), it seems to me certain that we must abandon a view which has been held to be certainly true by most philosophers, namely the view that our sense-data always really have the qualities which they sensibly appear to us to have. For I know that if another man were looking through a microscope at the same surface which I am seeing with the naked eye, the sense-datum which he saw would sensibly appear to him to have qualities very different from and incompatible with those which my sense-datum sensibly appears to me to have: and yet, if my sense-datum is identical with the surface we are both of us seeing, his must be identical with it also. My sense-datum can, therefore, be identical with this surface only on condition that it is identical with his sensedatum; and, since his sense-datum sensibly appears to him to have qualities incompatible with those which mine sensibly appears to me to have, his sense-datum can be identical with mine, only on condition that the sense-datum in question either has not got the qualities which it sensibly appears to me to have, or has not got those which it sensibly appears to him to have.

I do not, however, think that this is a fatal objection to this first type of view. A far more serious objection seems to me to be that, when we see a thing double (have what is called "a double image" of it), we certainly have two sense-data each of which is of the surface seen, and which cannot therefore both be identical with it; and that yet it seems as if, if any sense-datum is ever identical with the surface of which it is a sense-datum, each of these so-called "images" must be so. It looks, therefore, as if every sense-datum is, after all, only "representative" of the surface, of which it is a sense-datum.

(2) But, if so, what relation has it to the surface in question? This second type of view is one which holds that when I know "This is part of the surface of a human hand," what I am knowing with regard to the sense-datum which is of that surface, is, not

that it is itself part of the surface of a human hand, but something of the following kind. There is, it says, some relation, R, such that what I am knowing with regard to the sense-datum is either "There is one thing and only one thing, of which it is true both that it is a part of the surface of a human hand, and that it has R to this sense-datum," or else "There are a set of things, of which it is true both that that set, taken collectively, are part of the surface of a human hand, and also that each member of the set has R to this sense-datum, and that nothing which is not a member of the set has R to it."

Obviously, in the case of this second type, many different views are possible, differing according to the view they take as to what the relation R is. But there is only one of them, which seems to me to have any plausibility; namely that which holds that R is an ultimate and unanalysable relation, which might be expressed by saying that "xRy" means the same as "y is an appearance or manifestation of x." I.c. the analysis which this answer would give of "This is part of the surface of a human hand" would be "There is one and only one thing of which it is true both that it is part of the surface of a human hand, and that this sense-datum is an appearance or manifestation of it."

To this view also there seem to me to be very grave objections, chiefly drawn from a consideration of the questions how we can possibly *know* with regard to any of our sense-data that there is one thing and one thing only which has to them such a supposed ultimate relation; and how, if we do, we can possibly *know* anything further about such things, e.g. of what size or shape they are.

(3) The third type of answer, which seems to me to be the only possible alternative if (1) and (2) are rejected, is the type of answer which J. S. Mill seems to have been implying to be the true one when he said that material things are "permanent possibilities of sensation." He seems to have thought that when I know such a fact as "This is part of the surface of a human hand," what I am knowing with regard to the sense-datum which is the principal subject of that fact, is not that it is itself part of the surface of a human hand, nor yet, with regard to any relation, that the thing which has to it that relation is part of the surface

of a human hand, but a whole set of hypothetical facts each of which is a fact of the form "If these conditions had been fulfilled, I should have been perceiving a sense-datum intrinsically related to this sense-datum in this way," "If these (other) conditions had been fulfilled, I should have been perceiving a sense-datum intrinsically related to this sense-datum in this (other) way," etc. etc.

With regard to this third type of view as to the analysis of propositions of the kind we are considering, it seems to me, again, just possible that it is a true one; but to hold (as Mill himself and others seem to have held) that it is certainly, or nearly certainly, true, seems to me as great a mistake, as to hold with regard either to (1) or to (2), that they are certainly, or nearly certainly, true. There seem to me to be very grave objections to it; in particular the three, (a) that though, in general, when I know such a fact as "This is a hand," I certainly do know some hypothetical facts of the form "If these conditions had been fulfilled, I should have been perceiving a sense-datum of this kind, which would have been a sense-datum of the same surface of which this is a sense-datum," it seems doubtful whether any conditions with regard to which I know this are not themselves conditions of the form "If this and that material thing had been in those positions and conditions . . ." (b) that it seems again very doubtful whether there is any intrinsic relation, such that my knowledge that (under these conditions) I should have been perceiving a sense-datum of this kind, which would have been a sense-datum of the same surface of which this is a sense-datum is equivalent to a knowledge, with regard to that relation, that I should, under those conditions, have been perceiving a sense-datum related by it to this sense-datum and (c) that, if it were true, the sense in which a material surface is "round" or "square," would necessarily be utterly different from that in which our sense-data sensibly appear to us to be "round" or "square."

V. Just as I hold that the proposition "There are and have been material things" is quite certainly true, but that the

question how this proposition is to be analysed is one to which no answer that has been hitherto given is anywhere near certainly true; so I hold that the proposition "There are and have been many Selves" is quite certainly true, but that here again all the analyses of this proposition that have been suggested by philosophers are highly doubtful.

That I am now perceiving many different sense-data, and that I have at many times in the past perceived many different sense-data, I know for certain—that is to say, I know that there are mental facts of class (β) , connected in a way which it is proper to express by saying that they are all of them facts about me; but how this kind of connection is to be analysed, I do not know for certain, nor do I think that any other philosopher knows with any approach to certainty. Just as in the case of the proposition "This is part of the surface of a human hand," there are several extremely different views as to its analysis, each of which seems to me possible, but none nearly certain, so also in the case of the proposition "This, that and that sense-datum are all at present being perceived by me," and still more so in the case of the proposition "I am now perceiving this sense-datum, and I have in the past perceived sense-data of these other kinds." Of the truth of these propositions there seems to me to be no doubt, but as to what is the correct analysis of them there seems to me to be the gravest doubt—the true analysis may, for instance, possibly be quite as paradoxical as is the third view given above under IV as to the analysis of "This is part of the surface of a human hand"; but whether it is as paradoxical as this seems to me to be quite as doubtful as in that case. Many philosophers. on the other hand, seem to me to have assumed that there is little or no doubt as to the correct analysis of such propositions; and many of these, just reversing my position, have also held that the propositions themselves are not true.

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PHILOSOPHY AS THE DEVELOPMENT OF THE NOTION AND REALITY OF SELF-CONSCIOUSNESS

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PHILOSOPHY AS THE DEVELOPMENT OF THE NOTION AND REALITY OF SELF-CONSCIOUSNESS

To attempt to review and summarize the results of a life-time's philosophizing is, as Ibsen says of the writing of poetry, "to hold Doomsday over oneself." Probably what was best in it has long ago sunk beyond recovery into the depths of the mind, constituting there its hidden framework and controlling unseen its attitudes, moods, and ways of operation. The endeavour once more to live through, to recall and record, the steps in the process of its formation, brings back but a mere outline of its history, a brief and abstract chronicle, and the slowly deposited results are, when reviewed in memory, but a meagre harvest of autobiographical material. Yet a would-be or professed philosopher can scarcely decline the challenge to report upon his processes and their results, for, more than his fellows, he has tried to make or remake his mind with open eyes, claims in doing so not to have wasted his time and energies, and to have been all the time engaged in a business of concern to others as well as to himself. Certainly a protected and endowed teacher of philosophy can scarcely disclaim a responsibility to others for the activity which has occupied the greater part of his working days or refuse to justify himself. However modestly he may estimate his own personal part in what, to use Bacon's word, is the essentially 'collegiate' business of philosophizing, he cannot disloyally leave philosophy itself undefended. Nor can he do otherwise than identify the cause of philosophy itself with that particular or personal form of it, which he has perhaps inherited or acquired from others, but which also he has appro-

priated and deliberately made 'his own'—which he hopes to see others make their own.

Such reflections may serve as an excuse for setting down some of the stages that an individual professor of philosophy has traversed, and for recalling with gratitude some of the influences which have shaped his philosophy, even at the risk of indulging in reminiscences too personal to be of general interest or importance.

During the course of my undergraduate studies, first at the University of Edinburgh and then at the University of Oxford, philosophy offered to my mind no special attractions. less I felt the enlargement of the intellectual field which the first introduction to its far-reaching problems brings about, but my interests led me rather to look for the subject-matter of my own future work in the domain of linguistic and literary studies. It was little more than chance that diverted my course and brought me back to Oxford and philosophy, nor did I for long regard the pursuit and teaching of philosophy as for me more than a second-best. Even as it was, my conception of it was coloured by my preference for scholarship and erudition, and I accepted, perhaps too readily, the Oxford tradition which directs its undergraduate students and their instructors to concentrate upon the texts of the two great Greek philosophers, Plato and Aristotle, as a propædeutic to philosophy. The chief result of this upon myself was to lead me, with the assistance of the late Professor Bywater and certain of my philosophical colleagues, to pursue to a perhaps unprofitable degree the study of the encyclopædic system of Aristotle into all its ramifications, linking it up through the Renaissance commentators upon his works with the extant Greek tradition of the later Peripatetics. Over-preoccupation with this did in a measure prevent me from recognizing the importance of the problems raised and canvassed in recent or contemporary philosophical literature. Gradually during the nearly twenty years of my work as a college tutor I made myself acquainted with some of the great modern philosophical classics, with Descartes, Spinoza and Leibniz and Kant, with Locke and Berkeley and Hume. Hegel I rather dipped into and occasionally consulted than read. All of these writers I took, and to my pupils presented, as in the main developing and working out competing "Theories of Knowledge," in this following or surrendering to a tendency which still prevails at Oxford. Local conditions constrained me in Logic to pay too much attention to Mill, and it may be because of that, though I had the Logics of Bosanquet and Bradley constantly in my hands, I did not appreciate their lessons. In Ethics I found little to help me; the English Moralists repelled me, Mill and Spencer were used by me and others as mere butts of criticism, Green and Bradley passed over my head, Kant alone seemed to afford a solid framework of ethical theory (but a framework only). I am bound here to refer to the works of John Grote, all of which greatly affected me; in them I found, not indeed a system, but a clear grasp of fundamental principles illuminating a wealth of detail. My reading in 'psychological' literature supplied me with little of value, and of Economics I was almost entirely ignorant. My lack of 'practical' experience left my considerations about Politics excessively abstract. Mere curiosity extended the range of my reading into various non-philosophical regions, but with inconsiderable returns to my philosophy in the form even of problems. Out of all this casually collected matter I made little attempt to shape a philosophy. Looking back upon its disorderly and almost arbitrary collection, what I see most cause to regret was my neglect of History, or the narrowing of it to the history of (a part of) classical antiquity.

The great Idealist tradition which had its chief source in Hegel had reached me only through Green, Caird, Bradley, and Bosanquet (and earlier, in a quite general way, through my tutor R. L. Nettleship). Even Caird's return to Oxford (and my good fortune in enjoying close personal contact with him) did little to increase its effect upon my mind. I made several attempts to lecture upon the Philosophy of Religion (taking Hegel as my guide), but, probably owing to my lack of the relevant experience, without making any advance. At this time I came to enjoy frequent opportunities of discussion

with many of my philosophical colleagues, who found themselves in a general but somewhat vague agreement with one another. Certainly in the main we were (most of us) agreed in opposition to the 'subjective' or 'personal' forms of Idealism which were current in our immediate neighbourhood, to the psychology which was openly or secretly connected with it, and more unitedly though less concernedly to the Protean forms of the then vociferous Pragmatism. Though I at least would have been prepared, as I still am, to look upon these as forms of un-philosophy, I had no philosophy of my own, and had not explored or defined to myself the basis of my criticisms. The result was not in my own case scepticism (which perhaps it ought to have been). The issue in debate had come to turn upon the nature and validity of knowledge, and for a time, in company with one of my colleagues, I developed and defended a 'realistic' account of knowledge. The principle of this was, in my own case, that the very meaning of 'knowledge' implied that what was known was and was what it was in utter independence of and priority to its being known by any knower. After some years I ceased to hold it and indeed regard it, as it was then stated by us, as error. I do not regret the time I spent under its spell, for it was then that I learned to know it for what it is; henceforward I find myself well acquainted with it and its numerous progeny. They have multiplied since, and people the contemporary philosophic world of England and America. It was at this time that a long holiday fell to my lot during most of which I let my mind lie fallow, and on my return to Oxford I found myself, through my election to the Waynflete Professorship of Moral and Metaphysical Philosophy, assigned the task of thinking out a philosophy, and supplied with a larger amount of leisure from personal teaching. But probably I should have been unable to do this even in the small measure in which I may count myself to have done so, but for what was almost an accident. Finding myself in Naples in the course of my return from my holiday, I was struck with the evidence which the booksellers' shops there displayed of a

widespread local interest in philosophy, and purchased two or three volumes by Benedetto Croce, whose name was only slightly known to me. I was not very well acquainted with Italian, but in what I was able to translate to myself I was greatly delighted by the freshness and independence of the views expressed, and by the scholarly manner of their presentation. These impressions were deepened as I increased my knowledge of his works. Ever since that date I have been an assiduous student of all that he has published, and I wish here to acknowledge with gratitude the light and leading which I have derived from them. It was not long before I acquired a knowledge of Italian adequate to enable me to explore the rich and growing philosophical literature of Modern Italy, extending my reading of it around and behind Croce, so as at least to place him in his proper setting and perspective. I followed eagerly and with profit the development of his thought into an articulate system and its multifarious application in diverse fields and to many detailed problems. He made clear to me where lav or ran the main current of modern, that is living, philosophy, gave me a good conscience in throwing overboard masses of antiquated lumber, and steadied my mind upon large, vital, and fertile principles. My Inaugural Lecture was composed under his influence, and I took an early opportunity of calling the attention of my colleagues and students to the importance of this Italian movement. As I continued to familiarize myself with it, I passed (with no abatement of my admiration and gratitude) to criticism of it. The result was to confirm to and in my mind its essential soundness, and to set on foot there a steadily increasing adaptation and appropriation of it to my own needs and ends. It supplied to me a principle which enabled me, as I believed, to achieve a far more satisfactory synopsis both of the history of philosophy (indeed of history altogether) and of the contemporary (which is also the permanent or eternal) structure of the world of human experience. Nor could I do otherwise than accept the main outlines of the map of the world of experience which was offered to me by Croce or, to put it better, his account of the system which is the nature of

Spirit and is manifest or discoverable wherever it is and works. Yet here I was occasionally doubtful and followed him at times with hesitating steps. I could not satisfy myself that I was able so to conceive the whole or unity that it necessarily, and because of its total and intrinsic character, developed into just this system or restored itself to integrity through its selfarticulation. Somewhat uneasily I presented to myself and others the quadripartite organization which I took over from Croce as having a sort of pedagogical or didactic character, and so being in a measure 'appearance.' Nor am I yet satisfied that Croce has 'deduced' it. The best way I can put this is by saying that it is an appearance which Reality puts on in the process of communicating itself to whatsoever is learning ever more and more what it is in itself, somewhat in the way in which Hegel speaks of the self-realization of the Notion.1 This view of the matter is very far removed from any representation of it as an "illusion" or the ascription of its existence to merely human limitations. It is rather bound up with the metaphysical (or philosophical) principle that the whole is not static, nor experience a state in which terms 'stand' in relations, nor knowledge an attitude, but each and all actual only as processes, processes of which that of learning is the least inadequate illustration or prefiguration.

To the grasp of this philosophical principle I was greatly assisted by the works of Croce's ally, Giovanni Gentile, as well as by the development of Croce's own thought partly at Gentile's suggestion. Despite the doubts caused in my mind by Croce's refusal to go the whole way with Gentile, I find myself unable to recognize the full autonomy of the forms of the spirit distinguished by him and to rest in the doctrine that its unity "consists in the very circle of its distinctions." Nor can I feel that the demand for an ulterior unity is inept and due merely to the survival within philosophy of an unphilosophical postulate of and for religion—the "last infirmity" of the philosophic mind, but still an infirmity. On the other hand, I can no longer accept the Absolute which is offered me by

Bradley and Bosanquet as the last word of Philosophy. I am bound to confess that the middle position which I attempt to occupy is in large measure slippery and unstable, and its occupant subject to fits of vertigo, not steadily under control. Nevertheless, it appears to me preferable to stay there and attempt to 'keep one's head' than either to descend to the more foggy levels of empirical philosophy and pseudo-scientific psychology, or to attempt to climb to the still more vertiginous summit of a supra-philosophical mysticism. Compromise is out of court in philosophy, but so also are "extremes," which must "meet" in it and come to mutual understanding and harmony. Nor does it appear how this can be save in a harmony which is a process and a progress, eternally made, unmade, and remade.

All this I essayed to bring before myself and my auditors in my ordinary lectures and instruction, but especially in three courses, one on Croce (dealing mainly with his theory of Art), another on Gentile, and with a more explicit effort at freedom from their mode of presenting it, in a course delivered in Manchester College at the invitation of the Hibbert Trustees on "The Nature of Spirit and its Life." By now the philosophy which I entertain and advocate has assumed in my mind a definite systematic form, and I am prepared to teach it as such and to defend it against antagonists. Novelty or originality I do not claim for it, but rather disdain. On the contrary, it appears to me as something which has slowly formed itself in the great orthodox or catholic succession of modern Philosophy, and it has confirmed and strengthened myself in the renewal of reverential discipleship to the great classics of Modern, Medieval, and Ancient Philosophy. Nor does it make me less but more ready to sit respectfully at the feet of such recent writers as Bergson, Royce, Bradley, and Bosanquet, or less willing to learn from converse with my more immediate fellowstudents. On the other hand, I must own that it has made me more deliberately impatient of the loose thinking, the somnabulistic speculations, the slovenly writing which characterize too much of what is offered us as substitutes for philosophy, and it has begotten a special distaste for the

self-advertisement of the commercial travellers in spiritual wares, who start new movements and push them into public notice. The courts of philosophy are not a temple, but they are equally not market overt for the charlatan and the miracle-monger. In Vanity Fair we are flooded with works professing to tell us "what we ought to know about the Mind" (which is not a bad way of describing what philosophy exists to provide). The more ought we to value and cherish those works of those past and present writers on philosophy in which are to be found "the pretious life-blood of a master-spirit, imbalm'd and treasur'd up on purpose to a life beyond life." Nor would I depreciate those humbler works which serve as channels to convey and distribute to a world athirst what springs in these life-giving sources.

It is time to attempt that summary of results, the invitation to produce which has been here, perhaps imprudently, accepted. But what is produced must be taken, as it is offered, under more than one proviso. It disclaims finality (for no philosophizing can reach an end in which it comes to rest); 'results' are naught and null divorced from the processes which lead to them; what is disclosed and exposed are indeed rather presumptions and presuppositions than 'results,' beginnings or principles rather than ends or conclusions. Nevertheless they are also professedly foundations in experience tried and tested, found, and therefore to be reported, sound, stable, and secure, and so relied upon as capable of supporting the edifices which Mind has built and builds upon them in its endless endeavours to construct for itself in the universe a habitable city. Lastly. it acknowledges the vanity of any hope adequately to express in words the self-certain grounds upon which Mind throughout all its busy activity reposes, yet for all that it does not decline to enter upon and pursue some formulation of their nature, some exhibition of their systematic structure, some estimate of their worth and strength. Alea jacta est. In form, too, this confession of faith must be largely or prevailingly negative or polemic, and that not from any will to controversy, but for the

deeper reason that it is necessarily a confession of ignorance. Yet here, too, it must be added that the ignorance avowed is no mere or "blank" ignorance, but an ignorance awake to itself, a docta ignorantia, an ignorance which has learned what it is and therefore has of itself a doctrine to offer. Hence what is here offered is in plain terms a doctrine concerning what is in itself unknown and unknowable, the inward and secret essence of Mind, and of whatsoever in the universe surrounds it, constituting its whole and sole environment. The account here formulated is neither inventory of contents nor theory nor body of truth, does not claim or aspire to be any of these, but is, as I have said, a disclosure and exposure of what, if any of these be established, underlies them as their indispensable substructure, and if, so disclosed and exposed, it is criticized as paradoxical, the criticism is repelled as at once justified and nihil ad rem. Its soundness may be questioned, and indeed ought to be and must be, but the cause cannot be determined before the tribunal or by the jurisprudence of ordinary 'Logic.' There is a superior court competent to try it, and there is no attempt in what is here said to withdraw the claims made for it from the jurisdiction of the intellect or to appeal away from the head to the heart. To be certified sound a philosophical doctrine must pass the bar of intelligence, and can in no way assure itself by pacifying the cravings of feeling or meeting the demands of will. There are demands of intellect which it must comply with, or, as a satisfaction of our whole nature, it is in default and cannot stand.

Of such presuppositions the first and most fundamental—so I begin to state my case—is, that the whole and sole Reality (or, as I prefer to name it more concretely, the whole and sole Real) is not stationary or immobile, but essentially in change or process. For it to be is to become, and to become is to be. There is no static or inert background against which change or process stands out, no changeless fount of existence which itself does not flow. Being does not transcend or outflank existence. To be means to exist, to happen, to occur: the Real is compact of events. This basal assumption I put

habitually to myself and others by saying that the Real is a (or the) History, and every genuine part of it historical. I am therefore obliged to reject the counter-doctrine that "the Absolute" while containing all histories is and has itself no history, and so at the outset of my philosophizing to part company with Bradley and Bosanquet, to whom I have owed and continue to owe so much help.

Bottoming myself upon this doctrine, I accompany it with a gloss which may appear almost to cancel it, viz. that the History which the Real is (and so everything real) is a timeless history. It is an event which occupies the whole of Time, and the same holds of every genuine event within it, so that the time of one does not exclude the time of another, but all such times interpenetrate one another without overlap. Hence its and their 'timelessness' is a synonym of their 'timefulness,' or, as we say, their 'eternity.' 'Eternity' is the reality of which 'timelessness' is the negative or polemic equivalent. the ideal face which it in its self-revelation turns to Mind as its would-be knower. This revealed character of the Real the Mind endeavours to express to itself, and paraphrasing in its native dialect what it learns, states it in terms which represent it as a mutually exclusive successiveness of timed or dated events, or rather plainly misrepresent it so that save by praying in aid "simultaneity" what is said of it would be mere error. Henceforward Mind, embarked upon its course of thus expressing the reality of the Real, proceeds to attempt more and more adequate expressions of it by an adjustment of the competing claims of successiveness and simultaneity. It assumes that in or from the beginning the Real is given to it as an endless plurality of separate events related (that is, disjoined) as Before and After, and yet somehow also united behind their backs (and beyond its reach) in one single and total Time. Thus, divided against itself and unable to recover its lost naïve unity, it strives to ignore the latter element in the reality of the Real and to work with the assumption that what History is is an aggregate of events disintegrated by time relations between each and each of its distinguishable parts. Hence it proclaims that History

means that, and so that 'eternity' is a mere sound, or at best a self-begotten illusion of the Mind which it interposes between itself and the reality or the Real, whose authentic nature it fain would know. Discovering its self-sophistication, but unable to desist from it, it denounces the intrusive veil as mere 'appearance.' 'Eternal,' so we are told, is meaningless, and, attached to 'History,' evacuates it of meaning or degrades the whole combination to its own nonsensical level. My contention is, on the contrary, that 'eternity' is the dominant, not the recessive, factor in the meaning, and that the epithet far from obscuring brings out the meaning implicit in the substantive "History."

The second assumption—for I cannot count what I have said as involving two-is that History, the whole and sole History there is, and therefore every genuine part of it, is spiritual. It is the existence or outcome of a (or rather the) spirit, which in existing undergoes no alteration of its nature. I am obliged to repeat that in accordance with my first assumption the author in no way transcends his works; he is immanent in them, and they leave no unrealized residuum in his being. Thus History is spiritual throughout, and outside or beyond it spirituality. As yet 'spirit,' 'spiritual,' there is no 'spirituality' are but words. But they are meant, and what they mean may be put at first negatively or, as I have said, polemically. The doctrine which the use of them conveys is that what is called 'matter' or 'nature,' etc., is nothing real, not the reality of anything. What positively is conveyed is that the Real is activity, or, to put it more boldly, self-enacting or self-determination. It is true that so to put it is not to express what reality or the Real is as it is in itself, and once more our language is our way of putting it to ourselves, an expression of it necessarily ideal or idealistic. And once more we ignore that part of the total meaning which is the more difficult, omit what signifies it (the prefix "self"), and attempt to proceed with the remainder. Thus we de-spiritualize the meaning and represent (or misrepresent) the Real as a crowd of mere occurrences or happenings. History, we say, is in

itself the aggregate of was eigentlich geschieht, what simply befalls, and so we oust the creator spirit from its works and extrude its creative activity from the Real.

A corollary from the doctrine (or dogma) of the spirituality of the Real is that what is 'non-mental' is homogeneous with what is, and the immanent activity of the one the same in nature with the immanent activity of the other. Thus the doctrine rejects the counter-doctrine that in Mind's activity of interpretation, or elicitation of meaning, a work is begun which the extra-mental real had left undone or unbegun. To say so would fatally lead to a severance of reality from meaning, as if meaning came from outside the Real and were imposed upon it. In opposition to this it is contended that the Real in itself has meaning, that for it to be real is to mean, and that Mind in extracting and appropriating meaning neither has to, nor can, undo or depart from its own reality. What Mind is and does is what the extra-mental real is and does at a different level or with a different degree of efficiency. What constitutes the spirituality of Mind is only in degree different from what constitutes the reality of the real (other than Mind). Of both and of the whole which they together form the real being and existence is a spiritual History.

The third assumption which I make and recommend is that spirituality (and so reality) manifests itself—I do not hesitate to say realizes itself—most freely and fully in Self-consciousness. That this word has no meaning I must firmly decline to admit, nor can I for a moment acquiesce in proposals to extrude it from the philosophical vocabulary, on the ground that it "connotes the incomprehensible" or is "an abbreviated expression" for some more acceptable meaning which is not its meaning. Here, as with its fellow-offender 'self-enacting,' it is required to purge its offence by omission of the prefix 'self,' and 'consciousness' is admitted into philosophy only through the portals of psychology. Or rather, even so, it is tolerated only if, in shedding its 'con-,' it humbly avows itself to mean no more than "awareness of what is other than what is aware." It is not as the vehicle of any such decapitated meaning that

the term is here employed, but in that full sense, with which it has been meant by our spiritual forefathers in the great catholic tradition of philosophy. The notion of Self-consciousness seems to me the key and clue to spirituality and so to reality, a notion now clearer than either of them and so illuminative of what in them is dark and perplexing. It is in its light that we grasp the meaning of History as it is it which is revealed in and by History.

What it is and what it means are so closely one that it is scarcely necessary to distinguish between them. Taking both in one, what we have learned and therefore can teach about it is this: (1) that it is not a fact but a process, not made but always in the making, (2) that it is a process of self-making or self-creation, and (3) that in making itself and so coming to be it reveals to itself its own meaning (which is its own reality). It may be at once admitted that its nature and meaning cannot be expressed, but that does not mean that they escape the grasp of Mind, and we may listen with equanimity to those who have observed the superficial paradox or the shallow self-contradiction conveyed in its name. These are but trivial defects of its nomenclature, nor should we be seduced by them into the unwisdom of rejecting a valuable instrumentum philosophandi.

What their presence teaches us is that what we so fail to express (though not with a total failure) is a notion still, as it must always be, in the making—eternally to be made, unmade, and remade. To wait until its making is accomplished or at an end before availing ourselves of it would be the height of unwisdom. It has always been ours and available for our use, and it can be endlessly improved, or rather, properly employed, it is by use made ever better and better. To deny that such improvement has taken place is to decline the lesson of philosophy, and especially of modern philosophy, and we possess it now in a form the value of which can scarcely be overestimated or easily exhausted.

At this point I must turn in its defence to a prolonged campaign (not to be pursued here) upon its detractors, its depre-

ciators, and caricaturists. Yet a few words may be permitted. It is a monstrous perversion to impoverish and scale down its momentous meaning to no more than that of "awareness of another by a very serious misnomer called by the same name as that which is aware of it," or that of a mirroring of an object itself the mirror image of the mirroring mirror, etc.

What is wanted (or wanting) is not any description or definition or interpretation of it, but it itself in fuller measure, for, if it is there more fully, it will carry with its presence the fuller meaning we would fain grasp. Happily, as I have said, it is already present and in a measure, if not adequate, yet fuller than we have availed ourselves of: the way also is plain by which to get and make more of it. Its ample resources are at our service in the great classical works which stand out in the history of philosophy—the distilled quintessence of all History and so of all Reality.. In them it is not expressed but it is conveyed and offered-materials predigested or prepared which by reflection can be transmuted into its light. There is no way other than this by which Self-consciousness can come to be or its meaning come home, and so none by which what the Real reveals of its reality can be appropriated, and so the Real be further realized.

But though the Mind may thus justify itself in philosophizing, in learning and teaching what can be learned and taught about the Real, and though in so doing it may assure itself that it is advancing the Real to further realization, nevertheless it must duly acknowledge that in this it does so subordinately and indirectly, and that there is a more direct way. The nonmental real at times short-circuits Mind's natural course in ways which contrast within Mind's apparently chosen or enforced roundabout procedure, and seems often to secure a better result with less effort. These ways Mind too uses, but not at will or so that it can observe its own course. What is thus realized are to Mind rather gifts to it than achievements of its own. They, or rather their origination, fall no doubt within the Real or History, but outside Self-consciousness. At any rate we must acknowledge that they fall outside actual or explicit Self-

consciousness. Thus actual Self-consciousness appears always to be accompanied or environed by the un-selfconscious. from which suggestions come to it which stimulate the Mind to the framing and elaborating of suppositions or, as I have here called them, assumptions. This activity the proper activity of Self-consciousness—is philosophizing, which therefore, though it can perfect, and assure itself of the intrinsic correctness of its procedure, can never 'verify' its garnered contents. This is a necessary reminder of its limitations, but on the other hand its realm extends far beyond those of Science or Truth, whose actually conquered province is much more restricted. Thus so much of the Real as has risen to explicit Self-consciousness is begirt with mystery, and it does not appear that it can ever actually be otherwise. Yet in this there is no return to the doctrine that Reality in itself falls beyond its grasp, for the circumambient dark is nothing for it but what is indefinitely penetrable by it, there being no reason to suppose that it contains aught impenetrable to it. as there is that it is inexpressible or inconvertible into Truth.

The frontiers of explicit Self-consciousness exist, but are in retreat or recede as it advances. This reflection may serve to bring about the acceptance of a suggestion or supposition concerning its nature which appears to me to commend itself as an improvement beyond what the word usually carries with it, fitting it for further and wider employment than is usual. In this amended form it is released from restriction to 'awareness' which appear but as a case of it. This is that Self-consciousness should be taken to mean that character of a whole. in virtue of which the total nature at once descends into and so dwells dividedly in every genuine particularization or particle of it, and also retains its total character as such accompanying each such particularization or particle. In this use of it I am accustomed to speak of self-complicity as the essence of the matter, whereby I seem to recover or refresh the original sense of consciousness, and to bring out the identity of consciousness and conscience, which in English usage has been unfortunately broken in two. Certainly it appears to me to be in our usage to find Self-consciousness

where there is no longer left explicit awareness, but where such involution or implication of the whole in and with its parts remains. That, so to speak, is the point, the point of light, in our notion of Self-consciousness.

This self-luminous, self-illumining, and self-illuminated point (which is also a region) is Mind actual and active. Mind is the name used of it, when a higher is contrasted with a lower degree of it, and what is then taken to be lower and as enclosing or environing it (the rest of the Real) is still spiritual, and indeed still mental. So taken this other or outer is bound to the inner, and that in endless co-operation or interaction; it is at once the deposit or creature of the central energy and the stimulus of it to further effort and output. Thus the distinction between Mind and the circumambient mental or nonmental is not a separation (and coupling) of disparate factors in experience, but only an appearance bene fundatum. But if the distinction be made, it is Mind that 'mind' inherits, or as of right possesses, a superiority over the rest: it represents the spirit of the whole. Hence it knows, while the rest (relatively) ignores and in its ignorance but ministers to knowledge. It might appear that thereby what is not Mind acquires a title to represent the spirit of the whole as active or practical, but this is not so. Mind as knowing is also and eo ipso creative, and creation is the superlative of action. Here, too, the non-mental is the less active, the less free or unhindered. What we call 'action' is here, too, ministerial to action proper. There is action in knowing (which is creating), and we wrongly restrict the Will (and volition) to such 'action' as is supposed to take place in the relative dark. Habitually we do so (unwittingly) restrict it, and doing so slide into mis-suppositions about it, and in the end mistake our nature and what surrounds it, ourselves and our world.

It is necessary here explicitly to state that such mistakes are not mistakes concerning a nature other than and transcending our nature, but concerning a nature which is in us (though not in us alone). What is spoken of is not a Spirit beyond all spirits, but one which is in all spirits, which is us and which we are. What is contended is that we know and in knowing

create, create what we know and know what we create. With this explanation I continue to speak of Mind (without either the definite or the indefinite article).

Mind, then, as the representative of the spirit of the whole, at once knows and creates whatever in any sense is. Hence it at once creates and knows all minds, and in doing so imparts to them its nature which then is theirs. Whatever 'limitation this multiplication, distribution, and sharing imports, it does not disnature what is bestowed and "enjoyed." Hence it is neither on the one hand a merely general nor on the other hand a merely particular commission. Were it otherwise, between mind and Mind, and so between mind and mind, there would subsist only an external likeness, and so between them there could be only the semblance and not the reality of intercommunication, reciprocal action, and mutual understanding. No. each mind must be supposed endowed with powers cognitive and active, at once genuinely universal and genuinely individual or individuated. From its cognition or its enactment nothing is excluded by its universality or its individuality, but all is included, nor again does either character extrude the other; on the contrary each aids the other. There is no deed so individual and none so world-wide and eternal that we cannot enact it, and no object or fact so individualized or so integrated that it must escape our knowledge, and the combination of individuality and universality in one need not and cannot withdraw that one from the scope of our active or cognitive powers. Nor, lastly, need or can these several powers clash irreconcilably the one with the other. The whole of the Real is ours (because it is Mind's), and therewith the provinces of moral goodness and business success (of all welfare and all wealth), of all beauty and all intelligibility (and so of all truth). The Real—the whole Real—in all its reality and ideality is our patrimony, and all our experience, history, and existence consists in the usufruct and fruition of our rightful possessionsthe exploitation and enjoyment of what is ours.

These are some of the main suppositions which I have come to make and still trust in. They are not, and do not profess

to be, more than suppositions; they are made and maintained by 'supposing,' an activity which in scientific and perhaps in philosophical circles is held to be of no great account. But they are, and claim to be, no less than suppositions, foundations. τῶ ὄντι ὑποθέσεις. As here imperfectly worded, they are offered offered for trial—as being what appears to me sound and secure bases upon which to erect the superstructures of Æsthetics, Logic, Economics, and Ethics, and upon them the higher and more habitable story where the Sciences carry on their inexhaustibly useful labours, and, last of all, the study within which the Historian records and interprets the whole advancing text of human experience. No finality or absoluteness is claimed for them, but rather is in principle disclaimed. even the temporary adoption or maintenance of them calls for a radical reconstruction (not demolition) of what is rested upon them. Though no earthquake or landslide need be expected, widening rifts and cracks in the old walls, tiltings here and tumblings there, are obvious enough, and the invitations to build out upon shifting sand and quaking morass must be firmly and steadily declined. There is never too much (but almost always too little) examination of proposed sites, that is, of the fundamental principles or bases of thought. It is a work which can scarcely be done alone, it goes on by converse and even controversy, by disclosure and collation of suppositions, and all one man can do is to contribute his quota, submitting it to criticism or, as I have said, to trial. To anyone who has found others more trustworthy, all he can do in exchange for similar help is to propound his own, asking for them no more and no less consideration than he is prepared to give to the proposed substitutes, saying

si quid novisti rectius istis, Candidus imperti, si non, his uterc mecum.

CHIEF WRITINGS

Knowing and Acting (Inaugural Lecture, 1910).

On Feeling (Aristotelian Society, Proceedings, 1914.)

Is there a Mathematics of Intensity? (ibid. 1918).

The Philosophy of Giovanni Gentile (ibid. 1920).

The Nature of Art (1924).

VALUE AND REALITY

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VALUE AND REALITY

THE contribution which I have endeavoured to make to philosophy is concerned mainly with the significance of ethical ideas. For the most part ethics, and in general the whole region of values, have been treated by philosophers either simply for their own sake or with a view to practical issues, and their investigation has been regarded as supplementary to, rather than as an essential part of, the problem of knowledge and reality. On the other hand theories of reality have been constructed in exclusive dependence upon the data derived from sense-perception and the cognitive conditions required for understanding these data, without any account being taken of the facts of value and the appreciation of values. This procedure has indeed frequently been challenged, or dissatisfaction has been felt with its results; and then an appeal has been made to a neglected aspect of things: types of metaphysical theory have been rejected because they fail to satisfy the emotional longings or spiritual aspirations of man, and ideas of worth or value, omitted in the formation of systems, have been introduced afterwards to decide between competing intellectual views.

The opposition to 'Intellectualism' has its roots here." The heart has its reasons which the reason knows not." Now these reasons of the heart may be dealt with in more than one way. They may be allowed to give a 'passional' decision on ultimate questions, thus asserting their right to take their own course and to brush reason aside should it stand in their way. But this method of procedure is tantamount to giving up philosophy

¹ See, in particular, Moral Ideas and the Idea of God, 1918, 2nd ed., 1921.

altogether; for philosophy is always a thinking consideration of things, and its only instrument is reason: if 'reasons of the heart' are allowed to decide against philosophy, then we must give up thinking philosophically. Another way remains open, however. The 'reasons of the heart' are themselves facts in the life of mind, and are based on the more elementary facts of appreciation or experience of value. It is only by an abstraction made in the interests of science that these value-experiences are disregarded in our attempts to understand the facts and processes of nature. They are as much part of the data of experience as sense-perceptions, and require to be taken into account when we pass from the scientific theory of nature to a philosophical view of reality as a whole. The real defect of 'intellectualist' theories, therefore (and it is a defect which belongs to some theories not commonly described as 'intellectualist'), does not lie in their effort to think out the facts thoroughly and in a rational manner, but in the incompleteness of their view of the relevant facts.

We must take into account what we appreciate as well as what we apprehend—values as well as facts. In the wider sense of the word these values are also facts—they belong to our experience—but they are not relevant to the conceptual scheme under which science is able to describe natural phenomena. Science is therefore justified in ignoring them, but in a complete theory of reality their nature and status must be investigated.

From this point two sets of problems emerge—one concerning the nature of the value-judgment and of values; the other concerning the type of philosophical theory which results when values are taken into account as factors in reality.

Ι

The theory of value has been investigated for many years by a number of writers, and their results diverge greatly. Disputes begin at the outset, for it is frequently held that values and the appreciation of value are 'subjective' in a sense in

which things and the perception of things are not. It is chiefly, although not exclusively, from the point of view of Naturalism that this contention is made; and it must be allowed at once that if the theory of Naturalism were valid the whole argument which I have worked out would fall to the ground. It is characteristic of Naturalism to regard 'natural' phenomena as the primary factors out of which the life of the spirit was grown, and at the same time to "interpret the more developed by the less developed." In this way the validity of ideas and values is made to depend upon their genesis. Of this theory, however, it is perhaps unnecessary to speak here, though I have written a good deal about it, especially in its ethical relations. But, even when Naturalism is set aside, the doctrine of the subjectivity of value remains. It is stated in various ways, but always seems to involve the view that value is dependent upon the subject experiencing it in a way in which what we call the objective world is not dependent on the subject experiencing it. If this is so value cannot be taken as a clue for the interpretation of objective reality.

In what sense, if any, then, is it true that value is subjective? The judgment or feeling or (to use the most general term) the experience of value is, of course, subjective; but so is the experience of any other object: and this does not make the object subjective. We experience both the blueness and the beauty of the sky, and we formulate the results of our experiences in the assertions that 'the sky is blue' and 'the sky is beautiful.' So far there can be no ground for saying that the blueness is a quality of the object, but that the beauty has nothing objective

In The Ethics of Naturalism (1885, 2nd ed., revised and enlarged, 1904) I have examined various forms of naturalistic ethics, and in particular the ethical significance of the theory of evolution. The same subject is further discussed in Recent Tendencies in Ethics (1904), pp. 36-84, and in an article on "Evolutionary Ethics" published in The Quarterly Review for April 1909. A discussion of the general philosophical significance of the theory of evolution may be found in "The Interpretation of Evolution," a paper read before the British Academy on November 24, 1909, the fiftieth anniversary of the publication of Darwin's Origin of Species. This paper is published separately and also in the Proceedings of the British Academy, 1909-10.

about it. If any such ground can be discovered it must be the result of a further analysis; and analysis is said to support the view that value is subjective. It is held that, when I make a judgment of value, the ground of the judgment is a certain affective or conative experience of my own. When I say, for example, that the sky is beautiful, the judgment is derived from my experience of being pleasantly affected by the sight of the blue sky—or perhaps from the conative experience of desiring the continuance of this vision; and accordingly the reference is to a state of my own mind. Value is, therefore, subjective; its appreciation is on a different level from the apprehension of things and qualities and relations in the objective order.

Such is the argument, but on scrutiny it betrays a certain weakness—a failure to distinguish between the origin of a judgment and its reference. The origin of the value-judgment may lie in the affective or conative experiences of the individual mind passing the judgment, but its reference is to something beyond that individual mind. The judgment does not mean that I, the subject judging, experience pleasure or desire, but that something is good or beautiful or worth desiring. The judgment may be mistaken, but that is its meaning; and: if the objective reference is without justification, then we are always blundering in all our value-judgments by giving them an objective reference to which they have no valid claim. Further, the distinction between our appreciation of value as subjective and our apprehension of things as objective cannot be maintained. If the appreciation of value arises out of affective-conative experiences it is equally true that our apprehension of things arises out of sensation. In this respect appreciation of value is on the same level as perception of things. If the former is concerned solely with our own feelings or desires, then and for the same reason there is no knowledge of objective reality, but only of our own sensations.

If this position be adopted it will imply something more than subjective idealism, something more even than solipsism. It will mean that the object of each momentary experience is just

that momentary experience itself. Perhaps the position may be maintained without self-contradiction; but it is a position from which no advance can be made in the direction of organized knowledge, and besides it rejects the *prima facie* meaning of experience. Experience is always of something other than the experience itself; it refers to an object which is not to be identified with the process of experience. The subject of the experience is in touch with something other than itself—an object; both common knowledge and science presuppose this, and philosophy is unable to dispense with the presupposition.

These considerations lead to the conclusion that the question of the genesis of the value-judgment and the question of the genesis of knowledge generally are on the same level, and that the relation of genesis to validity is the same in both cases. Genesis does not really affect validity, though it may, in certain cases, suggest a line of inquiry into the nature of the validity which can justly be claimed. And perhaps the present is such a case. It is clear that there is a difference between the process. of appreciating value and that of apprehending things and their relations. The former depends upon an affective and conative attitude towards the objective world, whereas in the latter we try to adopt a purely cognitive attitude. The separation of these subjective attitudes of affection, conation, and cognition is not primitive and it is never complete. It is only gradually that knowledge comes to be comparatively free from intermixture with feeling and desire, and then the subject, interested in knowledge for its own sake (that is, with a new feeling for knowledge itself), disregards those qualities and relations of the object which appeal to the more primitive emotions and desires. In this way he is able to contemplate the object as not merely an other but an independent other-something to which the subject makes no difference and which makes no difference to the subject except that it changes his ignorance into knowledge. Hence a kind of objectivity which the moralist or the artist would hardly be inclined to claim for his outlook on the world. They are interested in just those aspects of things which appear to be irrelevant and confusing from the special

point of view of the man of science; and their interest in these aspects cannot be separated from the appeal which they make to feeling and desire. It is through his affective-conative consciousness that he is able to appreciate them, but he does not necessarily value them by their reference to his own feeling or desire. It is enough that they are connected with a complex which includes conscious beings, that is, subjects of feeling and desire as well as of thought.

Value is not merely subjective; but we are now able to see why it has been often held to be so. Objectivity is regarded as something found (or perhaps created) by thought, and the thought-process itself has been so carefully studied in its common characteristics that it has been stripped of all traces of particularity due to the individual minds in which it operates: it is itself objectified; whereas the particularity of other mental factors, such as feeling and desire, is never lost sight of, and these factors are always recognized as subjective. Now when we speak of anything as good or as beautiful (and these are the most familiar though not the only kinds of value-judgments) we seem to attribute a character to the thing which appeals directly to feeling or desire. These undoubtedly are states of a subject, and consequently value is thought to be subjective in a sense in which 'things' apprehended are not. This result, it seems to me, is a consequence of the objectification of thought. At any rate, it is invalid, and that for two reasons. In the first place, as I have already pointed out, the apprehension of things is rooted in sensation, just as the appreciation of value may depend upon feeling or desire; and sensation is just as subjective (something belonging to the experient) as feeling or desire. And, in the second place, the value appreciated need not belong to the subject appreciating any more than the thing apprehended belongs to the mind apprehending it. The reference which value may have to feeling or desire is not (or need not be) to the feeling or desire of the subject who appreciates it or passes judgment about it; it is (or may be) to feelings or desires of persons who are as objective to the subject in question as are physical things. Intrinsic values do, as a matter

of fact, always require persons as their bearers; nothing is ultimately of worth for its own sake except persons or some quality or state of a person. This holds, I have argued, of the so-called 'higher' values of Goodness and Beauty; it holds also of Truth, for the truth to which we assign value is an intellectual harmony between the mind of man and the order of reality.

There are other values than these. But they are instrumental—qualities or processes which are productive of value rather than themselves values; or approximations, the promise of something higher, like many of the qualities which have survival-value in a biological sense; or factors which in combination with other factors have intrinsic worth. Of this last class pleasure is, it seems to me, an instance; for pleasure heightens any value, rounds it off, as it were, and gives it an apparent completeness; and yet pleasure may be a factor in states of another kind, such as admiration of what is ugly or delight in efficient wickedness, so that it is not either an infallible index of value or by itself a value, and it may accompany situations where the value is negative.

Primitive experience contains the elementary factors both of appreciation of value and of apprehension of existing things: distinction between them arises later. But the recognition of the higher values emerges gradually in the development of the race and of the individual. When what we call fact and what we call value have been distinguished, the way is opened for two different views of experience—for that which terminates in science, as the term is commonly used, and for the contemplation of the worth or value which is found in or supported by life. Science again passes from the mere description of fact and process as they are apprehended by common sense to the formulation of general laws descriptive of these processes, and so to a formal or mathematical scheme which is descriptive of the processes of the world, and is at the same time capable of elaboration deductively. The theory of value lags far behind scientific theory in its advance; perhaps it is not capable of the same degree of refinement; but in it also it is possible to trace developments which bear some analogy to those of science. In it, too,

it may be possible to elaborate a formal theory in which the relations of its several concepts are systematically exhibited; and this formal theory would have to be distinguished from the exposition of the kinds and degrees of value found or attainable in life. The reference to life—to personal life—is always present where value is predicated; and it is this reference which marks the objectivity of value and at the same time distinguishes it from the objectivity of positive science.

In what sense, then, is value objective? In the first place, it is objective because it is a characteristic which belongs to the personal life. This also is the reason why it has so often been held to be subjective; but it has been held to be subjective because its personal reference has been misinterpreted. It is not a mere quality or character of the process of experiencing value or even of the person who has that experience. something which he finds to belong to personal life, whether in himself or in others. The goodness or beauty which a man sees and appreciates need have nothing to do with his own personal qualities; it is not his own feeling or desire to which he refers when he appreciates it; but it is something in the life of the persons who make up the world for him or at least much of his world. This whole world of personal life is something to which natural science may be indifferent. Science also has its rise in the personal consciousness, takes its first steps in the region of the particular, but it seeks general laws and formulæ of ever-increasing universality; it spurns the individual; and the conscious person is for it hardly even a puzzle, so far does he remain outside its range. But philosophy cannot be content thus to ignore individuality or the reality of the conscious persons in whom the life of the universe is manifested. Whether or not their reality is 'ultimate' in a technical sense, it is only through our recognition of their status in the order of reality that we can reach any tolerable view of what is ultimately real. Persons must be regarded as belonging to the objective order, the order of reality; and they are the bearers of value, for values are to a certain extent manifested in their lives and characters.

So far, therefore, we can see that value is something to be classed as objective. The goodness of the good man is as objective as the man himself. But this is not all that we must mean when we assert that value is objective. We find that life is a process of striving after values which are not yet attained, which in their perfection may never be attained—may even be unattainable—in the conditions of personal life so far as we are acquainted with them in experience. It is easy to see that the actual beauty and goodness and truth which experience reveals are objective; but what of the ideals which claim the allegiance of persons, without being manifested by them, which in actual life remain a 'not yet' and may be a 'never quite'? How and in what sense can we assert objectivity of them?

This question can be answered best by comparing ideals of value with the conceptions which are reached by science and are spoken of as 'laws of nature.' Formulæ such as the law of gravitation or the postulate of the conservation of energy are intended to describe in very general but exact terms certain physical phenomena and relations. It may be that their exactitude as descriptions of what happens has not been completely established; it may even be probable that there are certain limits to their universal validity; but their meaning and reference are objective not subjective. The objectivity claimed by moral laws and by ideals of value generally is similar. Its reference is not to the feelings or desires of the person who may formulate these laws or ideals. Nor, on the other hand, is their validity dependent on the extent to which they are realized in actual life-any more than the validity of the law of non-contradiction is affected by the contradictions present in the reasonings of some thinkers. At the same time, while the moral law and the law of nature are both objective, their relation to actual events is not the same. The law of nature describes actual events; unless it did so with a high degree of accuracy it would not be accepted as valid. the moral law does not profess to describe actual conduct; its relation to it is not descriptive but imperative—the result of applying an ideal to a life which is still in process of modi-

fication or which can be conceived as different from what it in fact is. By their very nature moral values at any rate imply the possibility of not being realized in existence. The imperative of duty is an imperative because what ought to be is not always actual. But the validity of ethical principles, like all validity, is a validity for reality. And the reality for which ethical principles hold is the world of persons. The law which the person recognizes as valid for him is a law which tends to the end in which personality is conceived as reaching its true good. This is an ideal, and its attainment must be looked for in the gradual process by which character is built up and conduct brought into rational order. The moral agent is thus compelled to regard his true personality—the personality which 'ought' to be his—as consisting not in the actual features of the passing moment but in an 'is to be'-in something to which he should attain and to which he can at least approximate.

Natural law and ethical principles are equally objective, but they differ in the objective orders to which they apply and in their modes of application. The laws of nature apply to the realm of existing things in space and time, and their validity consists in the accuracy of their description of events. Values apply to personal life, and their validity consists not in describing how persons comport themselves, but in expressing an ideal which they should realize. This fundamental characteristic of the appreciation of value distinguishes it from the apprehension of existing things and their relations; it takes different forms corresponding to the different kinds of value—ethical, æsthetical, and intellectual; and it always implies this unique relation to existents, that they ought to be in such and such a manner or in accordance with the ideal.

If we are asked to define still further the nature of the objectivity which belongs to values, the answer must be that they are objective in the sense of belonging to—being a factor in or

It should be noted that the verb 'realize' is used as equivalent to 'bring into actual existence'; it should not be taken as implying that the ideal not yet brought into actual existence does not belong to 'reality' in the sense explained in the text. Cf. Moral Values, 2nd ed., pp. 212-13.

aspect of—the system of reality which it is the aim of philosophy to understand. As a summary of the argument on this head a somewhat long quotation may be permitted. What is said refers to moral values only; but, mutatis mutandis, it will hold of other values also:—

"In saying that moral values belong to the nature of reality two things are implied. In the first place, the statement implies an objectivity which is independent of the achievements of persons in informing their lives with these values, and is even independent of their recognizing their validity. Whether we are guided by them or not, whether we acknowledge them or not, they have validity: they ought to be our guides. validity differs from the validity of laws of nature, inasmuch as the latter do actually express the constitution of reality in so far as it is material. Moral values hold for personal life in another way; they ought to enter into its constitution whether they do so or not. Their reality has therefore been called imperative reality; but the phrase does not explain anything. What is implied so far is that the validity of moral values seeing it is not derived from their acceptance by the persons for whom they are valid-must have another source. In some way it must belong to the system or order of the universe. To see how this can be, we must look at the second implication of the statement that moral values belong to the nature of reality. Reality, whatever other manifestations it may have, is manifested in persons; they are part of the real universe, and they come to form ideas of moral value and to some extent to frame their lives in accordance with them. Their lives are continuous efforts after a purpose or purposes; and in their attainment of moral values the nature of persons receives an expression which grows in completeness as moral value is realized. That is to say, the objective moral value is valid independently of me and my will, and yet is something which satisfies my purpose and completes my nature.

"The second implication of the statement shows us more clearly the way in which value belongs to reality. According to the former implication, the value is objective, but the kind

of being which it possesses is conceived as something apart from the existing universe. But this second implication of the statement brings out a connexion. Values characterize personal life as completed or perfected; they are factors in the fulfilment of purpose, and purpose is an essential trait of personality. It is possible that they may never obtain complete realization in time. But, even so, they will express the limit towards which the nature of persons points and presses. In this way they belong to the sum total of reality as an existing system. And this connexion resembles that of law to fact in the causal system, with this difference: that the latter relation is exhibited at each instant of time, whereas the realized system of values is the limit towards which personal life tends in its temporal course."

II

These results have an immediate and important bearing on the general theory of reality. Reality cannot be adequately understood if it is regarded simply as a system of interacting forces or as an orderly process determined causally. Besides the realm of existing things and their orderly relations, it includes something more—the realm of values. Values have objective validity, and must therefore be taken into account in interpreting reality. And they are not separated from existence. They apply directly to conscious agents, and they are realized in the lives of conscious agents-lives which are immersed in a material environment and thus connected with the whole physical universe. The existing world, therefore, cannot be understood apart from them. At the same time their recognition adds complexity to the problem. For convenience we may speak of the order which science discovers in the existing world as the causal order; and in the system of values, which has also to be taken into account, we may restrict ourselves here to its leading kind and speak of the moral order. A theory of reality must recognize both the causal order and the moral

¹ Moral Values and the Idea of God, 2nd ed., pp. 238-9.

order, and try to reach some idea which will combine and harmonize them.

Even this statement is perhaps an undue simplification of the problem. The causal order and the moral order do not exhaust the complex system of conceptions required for the explanation of experience, and the relations of approximation which these conceptions bear to one another are also disregarded. They have been selected in order to bring out a certain opposition which is not lessened by pointing to intermediate or mediatizing conceptions, but requires for its solution a mode of understanding experience through which the two opposed systems can be reconciled. The problem, therefore, if somewhat simplified, yet admits of its fundamental nature being expressed by the question how it is possible to understand a world for which both the causal order and the moral order are valid.

Analysis alone does not suffice in this inquiry. The phenomena grouped under the causal order contain connexions of events which present an appearance of entire indifference to the requirements of moral law, so that the realm of nature seems to have only occasional and accidental contact with the realm of values and many points of discord with it. And the moral order, on its side, requires a regard for values which we do not find in nature regarded as a causal order. It follows, therefore, that from analysing these two disparate orders we cannot proceed to a unifying conception. And, if this were the only means by which thought progresses, the way would be altogether barred. But analysis is only one stage in the process which leads to the general conceptions either of science or of philosophy. Analysis has its limits. The complexity and subtlety of nature are an obstacle to our assurance that any particular analysis is exhaustive—that it has reached elements not capable of further analysis, and that all the elements are included; and an enumeration of its elements may fail to disclose the nature of the whole as a whole. When synthesis does nothing more than put together the elements which have been distinguished by analysis, it also inevitably fails to account for scientific and philosophical conceptions. A more comprehensive view

of the whole is needed—a form of synthesis which is aided by analysis but not restricted by it, and which, keeping in sight the 'togetherness' of reality, may be called a synopsis.

In mode of operation synopsis resembles vision rather than discourse; it is an essential factor in the scientific imagination; and it has been deliberately adopted by many philosophers in their accounts of reality as a whole, and called sometimes 'reason,' sometimes 'intuition,' to distinguish it from understanding or the process of reasoning. There is no good ground for the view held by some philosophers that this synoptic attitude is opposed to analysis. On the contrary, the detailed knowledge of constituent factors which an analysis provides clarifies and widens the intuitive grasp of the whole; the view of the whole is not the same thing as the distinction and enumeration of its parts, but it may originate from, and its validity can be tested by its ability to include, the elements laid bare by analysis. This holds for every scientific theory which is not a mere transcript of facts (and no scientific theory is such). It holds also for the philosophical theory which attempts a more comprehensive synopsis-involving, it may be, a further effort of the scientific imagination—but is equally subject to the test of experience.

This test is even more exacting for philosophy than it is for science; for philosophy is concerned not with a given region of facts, but with the whole of experience or experience as a whole—not merely with the facts of sense-perception which intelligence has worked up into science, but also with appreciations of value which have been elaborated by ethics and æsthetics, and with the conscious persons who are the subjects or bearers at once of perception and thought and value.

These reflections indicate the way in which we may hope to reach an understanding of reality as a whole and the conditions to which such a world view must conform. It must be able to apply both to the causal order and to the moral order. These orders differ entirely in their laws; experience does not show any harmony between them, and yet they do not simply belong to different worlds, for they meet in the experience

of conscious minds who acknowledge the equal validity of both. A philosophy should be able to exhibit them as complementary aspects of a single reality, and systems of philosophy may be compared and judged by their success in this respect.

Values, if the account already given is correct, have a place in the objective order of reality, and they are realized only in the minds of conscious agents. The theory of reality must find room for these values and for their realization, and the competency of Naturalism as a philosophy cannot be maintained. We must look to a theory which interprets reality idealistically, so that the region of values and the persons in whom these values are manifested may have their due place in the scheme recognized. But Idealism is a word of many meanings—through which, however, a single leading difference may be traced. According to one view the real is the object of intellect, not of sense-perception, for intellect alone reveals the unchanging essence of things, whereas sense-perception presents a transitory and subjective appearance. The objects of intellect may be called 'ideas,' as by Plato (and hence the term Idealism), but 'order' or 'law' may perhaps more nearly express the meaning which a modern theorist would give them. On the other hand is the view, represented principally by Berkeley, that the only reality is mind or spirit (so that it is often named Spiritualism or Mentalism), and that all other things are ideas in some mind -finite or infinite. For the former type of theory the last word is order, law, or some similar term; for the latter it is mind. It is not the case, indeed, that many philosophers keep tenaciously to one side only of this simple antithesis; the concepts of order and law lead on to that of mind, and mind is a bringer-about of order. But the contrasted terms do indicate a contrast of types within idealist philosophiesbetween the idealism which tends to interpret reality as an order of objective or absolute thought and that which holds its essence to be of the nature of personality or of consciousness. It is further characteristic of the former type of idealism to emphasize the unity of reality, whereas the latter

¹ Cf. article on "The Two Idealisms," Hibbert Journal, vol. ii (1904).

stresses the plurality of the centres of conscious life; and hence the distinction between them is closely allied to a ruling distinction of philosophical theory—that between Monism (or Singularism) and Pluralism.

Both Pluralism and Monism are legitimate attempts to reach a synoptic view of reality as a whole. They have to be tested by their inner consistency as theories and by their ability to interpret the whole range of experience; and this experience must be taken to include the realm of values as well as that of nature, while the recognition of values implies also the recognition of the conscious lives in whom alone value is realized. forms of Pluralism which are relevant in this connexion all look upon the universe as consisting of a multiplicity of distinct selves or monads. Whatever is real has to be accounted for as the result of the activity of these monads operating either by themselves or-if interaction be acknowledged-in co-operation and competition. It is a commonplace of criticism that the characteristic difficulty of Pluralism is to give a satisfactory account of the unity or interconnectedness of reality. It may be possible to account for all the phenomena which are presented to selves as objects as being themselves monads or groups of monads of an order below the self-conscious: but there is greater difficulty in explaining the status of the laws and order of these phenomena and of the conditions which determine our knowledge of them and practical dealings with them. Are physical and biological laws simply the product of the minds who discover them? If so, we are unable to explain the fact that we are compelled to admit that they were and must have been valid long before their discovery? If not, we are driven to confess that their status in reality is independent of their recognition by finite minds. It follows, therefore, either that the plurality of ultimate reals or monads is determined by an order which they have not produced and which yet controls their experience and destiny or else that this order is the order of a supreme monad or mind to which all others owe the order of their being.

This argument is independent of the special point of the

present discussion, which has regard to the objective significance of the realm of values. But it is reinforced by the latter. Many of the Pluralist are not only determined by formal and causal relations which are other than they, and make them in some sense One; they are also subjects in a realm of values. These values are not dependent for their validity on being manifested in the activity of the selves who make up the Pluralist's universe, nor even on their recognition by the consciousness of these selves. Here, then, is another order of being which we have to recognize alongside of our ultimate reals, which they did not produce and may not even recognize, which yet has a valid claim to dominate their activity, so that it is only by recognizing the claim of these values and by drawing inspiration from them that selves can reach the highest individual reality of which they are capable. It is in the midst of the causal order that selves act as they do act; it is only by realizing in their own characters the moral order that their nature is completed or perfected. Accordingly, the Pluralist is again driven to admit into his scheme of things an order characteristic of objective reality which is not manifested and may even be unrecognized by any existing finite mind. If it is not the order of an infinite mind supreme over all others, how are we to explain its status in reality? The Pluralist is forced away from his original position that finite monads are the sole ultimate constituents of reality, and has to admit either that these finite minds and other monads are surrounded and controlled by two orders of laws and values-different from one another and from the monads whose behaviour they regulate and whose character they may inspire—or else that finite minds are subordinate to a Supreme Mind which is the source of law and the home of all values. If he adopt the latter alternative he is a theist; if the former, his thought wavers away from Pluralism in the direction of Monism.

The Monist has to face difficulties of an opposite but corresponding kind. He asserts the unity and connectedness of reality, but defines or stresses the unity in such a way as to make it hard to see how any distinguishable things are left in the universe

and in need of connexion. It is easy to speak of diversity in unity, but it is not so easy to do justice to both aspects. The Pluralist, emphasizing the diversity and finding therein all that is ultimately real, was brought up against unifying principles which had to be admitted but refused to fit his initial assumptions. The Monist, to whom the unity of reality is the fixed point of certainty, has to give some account of it in its nature as one; and, if he goes beyond the blank assertion that his Absolute is ineffable, he has to ascribe attributes to it, saying that it is thought, or extension, or harmonious, or perfect. But he never succeeds in showing how it comes to appear or to express itself in the particular modes of the phenomenal world—or even in particular modes at all. The downward way of the Monist is as uncertain and treacherous as the upward way of the Pluralist. In spite of his protestations, the Monist is in truth the essential Dualist. For his Absolute stands over-against the world of finite selves and of nature. He must recognize both, even although the latter be called 'mere appearance' or even just an illusion: an appearance is an appearance of something to someone; an illusion is someone's illusion about something. But the two cannot be brought together in his thought. Strictly, his Absolute is indeterminate, for 'determination is negation,' but he will consent to speak of it as harmonious and perfect, though he is no longer confident that it is thinking and extended. Now, whatever else the world of selves and nature may be, it is not perfect, and it contains much disharmony; so that the unity and the diversity are left in unrelieved dualism-unless it should turn out that the unity consists not in a colourless Absolute but in one creative and controlling Mind.

If we admit the objective significance of the ethical aspect of reality, Monism is faced with a new difficulty. For not only the order of existents—of finite minds and of nature—but also the moral order has to be regarded as an expression or manifestation or appearance of the Absolute. The two orders, which have been called causal and moral, are different in nature and to a large extent in the phenomena to which they do or

would lead. Yet they meet in the mind of man, which is at once immersed in a physical mechanism and akin to the higher values. Monism has to show how the all can be regarded as one in spite of this fundamental divergence. When it attempts to preserve the unity of its interpretation of things it tends to regard either the realm of values or the realm of existence as of questionable reality. It may give a naturalistic or it may give a purely intellectualistic explanation of reality and reduce values to subjective appearance; or, recognizing the eternal values, it fails to show how nature and finite minds are integral parts of the same universe.

All these difficulties arise from various forms of the opposition between the one and the many; and both Pluralism and Monism strive in vain to meet them. But they can be solved in principle if we regard the unity of the universe as consisting not of impersonal order or of 'bloodless categories,' but as a Supreme Mind to whom finite minds and their environment owe their reality. The Supreme Mind or God will be conceived not merely as a Creator but as the essence and source of all values, and as willing that these values should be shared by the free minds who owe their being to him. The whole visible world may indeed be regarded as an image of the Eternal; but it is a temporal image, not a photograph. It is only in time and by the kind of agency that time makes possible that finite minds can attain to the values of which they are capable; x and, if freedom itself is a value or heightens other values, they must achieve these values by the slow process of trial and error in the midst of an environment which does not make the way too easy for them.

Clearly, a view of this sort assumes the validity of such conceptions as those of purpose and freedom, and a defence of these postulates cannot be entered upon here, though it has been attempted elsewhere. Even with these postulates it is not contended that the events of the world and the careers of particular minds can all be explained and 'justified.' We

As regards this point, reference may be made to an article on "Time and Reality" in *Mind*, April 1923.

have far too little knowledge of existence and its final issue to make possible anything more than a general principle of interpretation; and it would be presumptuous to imagine that the purpose of the existing universe is exhausted in the fortunes of the human race.

The result of the argument is that a view of reality which gives impartial recognition to the realm of values as well as to that of existents cannot dispense with the idea of God. Through this idea only can experience as a whole be interpreted. This result, it is true, has been reached without bringing into consideration one region of experience, namely, religious experi-Every type of philosophy tends to be accompanied by an attitude, emotional and practical as well as cognitive, in which the individual subject faces the issues of life. Religious experience is, of course, independent of any explicit philosophy; but it falls within this general scheme, as a response of the whole soul or mind to that which is highest in its experience. We find here, accordingly, a department of experience which cannot be ignored and which has to be reckoned with in a final philosophical view. Religious experience is not allied with one form of theory only. At times and in some persons it may seem to suggest a pluralistic scheme of things, as with the worshippers of a plurality of gods or other heavenly beings. Monism, again, is connected with a profound development of the religious consciousness, and mystical experience has often seemed to find its most fitting theoretical expression in a pantheistic doctrine. Theism, therefore, is not the only view which may claim to do justice to the facts of the religious consciousness; and a difficult and delicate inquiry would be needed if one were to estimate the bearing of religious facts upon the validity of different philosophical theories. This inquiry cannot be entered upon here, but I think that its result would be to show that the religious consciousness attains its most perfect development in the worship of the one God who is the source of all reality, and that in this form alone it is in complete harmony with the moral consciousness.

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THE FREEDOM OF MAN

By A. E. TAYLOR

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BIOGRAPHICAL

Color che ragionando andaro al fondo s'accorser d' esta innata libertate, però moralità lasciaro al mondo.
Onde, pognam che di necessitate surga ogni amor che dentro a voi s' accende, di ritenerlo è in voi la potestate.

Dante: Purgatorio, xviii, 67-72.

It is a rule of good breeding, says Dante, not to speak of oneself without necessity. I trust that I shall not offend against this principle of reticence unduly by the few brief remarks I propose to make.

I could not say precisely when and how my interest in philosophical questions was first aroused. I remember as a very small child being worried by the solipsistic doubt whether the whole choir and furniture of heaven and earth (including my own parents!) might not be the fancies of a dream, and I myself the only real existent. Later on, as a schoolboy, I suffered acute distress for a time from a similar doubt whether all recognized distinctions between good and bad might not be unfounded and subjective prejudices. When I went up to the University of Oxford in 1887 I had already some acquaintance with the philosophy of Berkeley, was fascinated by what I had read of Plato (especially the Phaedo). and curious about Kant, of whom I had learned something vaguely in my schooldays from sundry essays of De Quincey. Like most thoughtful lads of my time I had been distressed by what I had learned of the conflict between the theology I had been taught and the supposed results of evolutionary science and Biblical criticism. What I looked for in philosophy was some sane defence of convictions which I felt were essential for the conduct of life against what seemed to be the disintegrating influences of scholarship and biological science. When I began to read philosophy seriously in 1889, the influence of T. H. Green's work was still predominant in Oxford. My attention was directed by my tutors primarily to Green and Bradley and to Kant as interpreted by Green and Caird; on my own account I also made further study of Plato and Aristotle and, to a lesser degree, of Kant and, as best I could, of Hegel. For the time I was carried off my feet by

Bradley (particularly by the Ethical Studies), though I found an insoluble puzzle from the first in what seemed to be T. H. Green's conception of a world composed of relations between terms of which we could say nothing, except that they were the terms of the relation. On the whole, however, I seemed to have found what I was in search of, a view of things which would protect the realities of religion and ethics against all danger from "naturalistic" attacks. I was then not alive to what I now think the great danger of the whole Hegelian way of regarding things, that it dissevers the "eternal verities" from all contact with "historical" actuality. Metaphysics, for the time, seemed to absorb all interest in the given and historical. When I became a Fellow of Merton in 1801 I had the opportunity for a few years of steady and uninterrupted study, chiefly given to the attempt to understand Hegel and Aristotle as well as my old "master" Plato. Above all I had the advantage of daily intercourse with Bradley, whose influence. exercised in many ways, must count for the most potent to which my own thinking has been subjected and the most beneficial. Among the many debts I owe to Bradley, not the least were the recommendation he early gave me to study Herbart as a wholesome corrective of undue absorption in Hegelian ways of thinking, and his repeated exhortations to take empirical psychology in earnest. These studies in the end led to a natural reaction against what now seemed to me the unhistorical character of the philosophy on which I had been feeding myself. The reaction towards the empirical and given continued, along with a new interest in the principles of physical science, provoked by the writings of E. Mach and others, during the years in which I was associated at Manchester with Professor Alexander (1896-1903), a period also fruitful for me in leading to a serious study of the great seventeenth-century thinkers, Galileo, Descartes, Leibniz. The "pan-mathematism" of Leibniz, like that of Plato, fascinated me deeply; even now that I am convinced that pan-mathematism, like absolute Idealism. is incompatible with a full sense of the "historical," I am keenly conscious of the attraction and cannot avoid thinking it the right and proper goal of the sciences of physical nature. I suppose that at this time of my life I was not far from developing into a kind of "Positivist," though it was at the end of the years to which I have referred that I came for the first time strongly under the influence of the work of Professor James Ward, to whom I owe a great debt of thankfulness for teaching me to appreciate more fully the meaning of "history" and from whom, in particular. I learned the impossibility of eliminating contingency from Nature. By the end of these seven years I began to discover that a change was coming over my way of looking at things. I read Plato

again, in the light of Leibniz, and found the tendency to empiricism and positivism passing away without any loss of the interest I had acquired in the empirical and the ideas and methods of the sciences.

For some years, while I was at McGill University, Montreal (1903-1908), this process was gradually working itself out. I think I may date almost from my return to Great Britain in 1908 my arrival at certain convictions which had slowly been shaping themselves and which still remain with me very definitely. One is the conviction that the business of metaphysical philosophy is, in a way, a modest one. It has to be content to recognize that in the sciences, in history, in morality and religion it is dealing with a reality which is in the end simply "given" and not to be explained away. Its concern is with the various intellectual interpretations of the "given," and its supreme task is not, as I once used to suppose, the "unification of the sciences," but the necessarily imperfect and tentative reconciliation of the exigences of scientific thinking with the imperative moral and religious demands of life. It has not to invent an improved substitute for historically real religion and morality, but to fathom as much as it can of their significance. There is no special infallibility about metaphysics and its methods are necessarily "dialectical" in the Aristotelian sense. It seems to follow that there can be no final "metaphysics," and that the temptation of all others which a student of the subject should avoid as he grows older is the temptation to have a "system" which leaves no unexplained mystery at the root of things. And it becomes a question whether, after all, the main service of metaphysical study to the mind is not to "liberate it from prejudices" and thus to prepare it to receive illumination from sources outside metaphysics. Whether this mental attitude is the right one or not, I only mention as influential in leading me to adopt it, besides the Neo-Platonists and the great mediaeval philosophers to whom I have been led so late by study of the Neo-Platonists, in particular the writings of Baron F. von Hügel. I should be ungrateful to the memory of a profound thinker if I did not add that the influence of Reid's writings has come late into my life, but is not the less felt for And I am glad to record the benefit which like others who have been in touch with him, I owe, in more ways than I can enumerate, to stimulation received from contact with the unwearied thought of Professor Alexander. I would also specially acknowledge my indebtedness to the work of Bernadino Varisco. indeed I hope I may (with all becoming modesty) copy one utterance of Leibniz. There is perhaps none of my associates and contemporaries from whom I have not learned much, and often most from those whose conclusions I am least able to accept.

THE FREEDOM OF MAN

WE may fairly say that, with the recent removal of Mr. F. H. Bradley from our midst, the last of that remarkable group of men who made philosophy once more a living and potent force in the final third of the nineteenth century has vanished from this region of temporality. Green, the Cairds, Lewis Nettleship, William Wallace, Adamson, Bosanquet, Bradley-they all now belong to history and the past, and the historians of thought will, no doubt, soon be busied with the attempt dresser le bilan of their work in neat and tabulated form. There will yet have to be an audited "statement of accounts"—so much of abiding achievement on the credit side against so much in the way of questions unraised or left undecided or decided wrongly on the debit side. Whether, on the closure of the whole account, there is to be a surplus or a deficit, we of to-day, to whom many or most of these eminent men have been known in the flesh as teachers or friends, shall hardly be called on to say. We are still too near them to make an impartial and final estimate of their influence on thought for good and bad. Yet we are also already far enough removed, perhaps, to scrutinize some of the items which the auditor of the future will have to take into his reckoning, and it is to one of these items I would now direct attention.

The cause for which the whole distinguished group stood, so far as Ethics is concerned, was an ancient and an honoured one. The chief part of their united work was to continue the age-long war of believers in genuine morality and real obligation against every kind of naturalistic substitute; to expose once again, with special reference to the positivists and evolutionists of their generation, the inherent flimsiness of all theories of morality which treat man simply as one part of nature, one

animal among the rest, making up by cunning what he lacks in physical strength or elaborately pre-formed instincts, human good as computable in terms of purely secular satisfactions, human duty as having no authority more august than the sanctions of the law-court and the ambiguous voices of popular applause and reprobation. Like Plato, or Cudworth, or Clarke, or Butler, or Kant, they stood for an "eternal and immutable" morality against the morality of acquiescence in the fashion of an age. At least, this was the ruling temper of the members of the group who occupied themselves seriously with the problems of Ethics. If there were some among them whose opposition to secularism in morals was less marked, they tended to leave Ethics alone and to concern themselves more specially with work in ontology, or the "theory of knowledge," or, it may be, with practical schemes of "social reform," and to leave the fundamental problem of the determination of the true character of human good on one side. Thus the natural affinities of the "men about Green" in Ethics are with the great British "rationalist" moralists from Cudworth to Price, who set themselves, in reply to Hobbes on the one side and the sentimentalists on the other, to argue that "things are good and bad," as Cudworth puts it, "by nature" and not "by will" or by "mere command," and that law and social custom are not the sources of morality, but, so far as they have themselves a rightful claim on our respect, created by and derived from morality, its effects not its causes, at best "true shadows" thrown by a light which is not of this world. In a word, the moral doctrine of the school is in the direct line of descent from the great Platonic tradition as christianized by Augustine and mediated by the great scholastics and their successors, the representatives of Anglican divinity at its best, from Hooker to Butler. I

I do not know whether I may be thought anywhere in these pages to be dealing a little harshly with the distinguished men who were my own immediate teachers. If I have fallen into this fault, my apology must be that I feel strongly the duty of championing against their neglect or unsympathetic criticism the whole great succession of British moralists from Cudworth to Price. Green's references to Butler, in particular, impress me as curiously wanting in appreciativeness.

Yet there is one point of prima facie importance on which Ethical Studies and the Prolegomena to Ethics seem to show marked divergence from the earlier tradition of the asserters of "eternal and immutable" morality. Before Green and Bradley entered the lists against Stuart Mill, Spencer, and Lewes, it had commonly been regarded as indispensable to the cause of rationalism to insist on liberum arbitrium. "freedom of the will." The denial of our possession of a real libertas or indeterminatio arbitrii had regularly been taken by mediaeval and modern moralists alike to amount to the repudiation of any real responsibility for our acts, and therefore to the rejection of unconditional obligation, and consequently to be subversive of the foundations of genuine morality. Bradley and Green, on the other hand, no doubt profess to hold a doctrine of human freedom, but their main anxiety appears to be to protest that, whatever they themselves mean by the freedom of man as a moral agent, they do not mean what "libertarians" have meant, if indeed libertarianism has any intelligible meaning. The "scientific determinist" is also formally condemned by both Green and Bradley, but in a way which inevitably suggests that in his case the condemnation is very much of a "formality," and that the critic is at heart inclined, after all, to come down on his side of the fence. Younger moralists who have drawn their inspiration largely from Green, notably Dr. Rashdall, have in fact openly avowed the determinism which is at least nominally disguised in Green himself. The most distinguished moralists of the late nineteenth century who expressly ranged themselves on this issue with Cudworth, Clarke, and Price, Professor Henry Sidgwick and Dr. James Martineau, stood outside the Oxford group and had very different immediate intellectual antecedents. Both these eminent libertarians were inclined to be sharply critical of all the utterances of the "Oxford idealists" about morality, and have, in their turn, been far too little appreciated by Green and the most eminent of his associates. It is notable, again, that the emphatic libertarianism of Kant's conception of the "noumenal" freedom of man as a moral agent, with

the conclusions to which it leads, has always provoked the sharpest criticism of the whole group conveniently, if inaccurately, named by opponents the "Anglo-Hegelians," and that this attitude is as strongly marked in Green, whose own inspiration seems to have come much more from Kant than from Hegel, as in Bradley and Bosanquet, who appear always to have read Kant through Hegelian spectacles. You may remember that Sidgwick closes a long and patient attempt to discover Green's precise attitude on the issue with a humorous complaint that it appears to be devised with a view to the twofold satisfaction of agreeing with the moralist in asserting Freedom and with the "scientific thinker" in denying it, and again that, in the brilliant essay which is perhaps the most suggestive contribution of the whole group or school to the discussion of Freedom, Mr. Bradley only disposes of the "determinist" as an initial step to a much more vigorous rending of the "indeterminist."

To some extent this curious change of front on the part of the advocates of "eternal and immutable" morality is explained when we remember that the issue at stake itself had changed between the time of Cudworth or Clarke and that of Green and Bradley. The concern of the earlier moralists is, before all things, with the antithesis, between "liberty" and necessitation from without. When Hobbes actually defined "the will" as the "last appetite in deliberation," and deliberation as a mere see-saw of conflicting "appetites," he virtually denied that there is any such act as choice. Hence, against him, it had to be shown, first that choice is a genuine specific experience, and next that there is a real moral difference between choosing to do a thing because you judge the doing of it to be good and doing it because you are terrified by the menaces of a human or superhuman despot. But by Green's time the "leviathan" had ceased to be taken seriously in moral theory. The issue was no longer between liberty and necessitation or compulsion, but between determination from within and the absence of such intrinsic determination. The question is now not whether "to be morally obliged" means to be coerced by a "leviathan" (or frightened by a Bombastes Furioso) or not,

but whether it means to exhibit conformity to a rule expressive of the way in which your own character reacts to typical features of its "environment." Now, if I first say that I can make real choices, and that consequently menace and threat never amount to downright compulsion, and then add that there is a formula which adequately describes my own personal moral character, and that knowledge of this formula would make it possible to calculate the line of action I shall take in a difficult situation, exactly as the astronomer calculates an eclipse or a transit of Venus, the first of these statements is not on the face of it inconsistent with the second. There is no réason, it might be urged, why a moralist cannot be at once a libertarian and a complete determinist, especially when we remember that the more intelligent determinists are quite ready to admit that the "elements" of a person's path of conduct are so complex and so little known that successful calculation from them not only is impossible in practice, but may very likely always remain so.

Whether a statement of this kind, intended to safeguard the interests of the moralist without damping the aspirations of the naturalistic physicist, would have been accepted by Green and Bradley as fairly representing their own mind is more than I should like to determine. There are utterances in the opening essay of Ethical Studies which indicate that it would not have satisfied Bradley in 1877, and we might reinforce them by an appeal to the vehemence with which Appearance and Reality maintains that all the positions of the various sciences must inevitably be "infected with error," and that to an unknown degree. It should follow that both physicist and moralist must be in error somewhere in their assertions, though we do not know just where or to what extent. But if each of two conflicting theories contains a wholly unknown amount of error, no ingenious "reconciliation" which leaves both

¹ Cf. Ethical Studies, pp. 14-17, on the difference between "rational" and "irrational" prediction. I should say at once that I can hardly divine from what source Bradley derived the version of the doctrine of Free Will which he criticizes. It does not seem to me to be that of any serious libertarian.

standing is likely to conduct us to truth. On the other hand, I do not recollect that Green ever commits himself to any position inconsistent with the proposed "reconciliation," and it is certain that some such view has found widespread and hearty acceptance among the younger men whose thought has been most influenced by Green and Bradley, and has come very near general adoption as the admitted solution of an age-old problem. Anglo-Hegelian philosophers of the first distinction have not usually been generous, sometimes have been markedly ungenerous, in their estimate of Leibniz; Kant has, nominally at least, always been their $\delta\epsilon\dot{v}\tau\epsilon\rho\sigmas$ $\theta\epsilon\dot{o}s$. But their treatment of the problem of freedom has nearly always been very much more on the lines of Leibniz's Théodicée than on those of Kant's Critique of Practical Reason.

With some trepidation I would venture to reopen the old dispute, the most important in the whole range of moral psychology, and to suggest that its true solution is not to be sought along these lines. More particularly, the suggestions I want to make are three: (1) that the conception of liberum arbitrium has a much deeper significance for Ethics than it was fashionable in Green's day or has been fashionable since to allow; (2) that the combination of a genuine libertarianism in Ethics with a thorough determinism in the realm of natural science is not really feasible; (3) that "scientific determinism" has only got a foothold in the philosophy of the natural sciences themselves by a mistake. My first contention, as you will note, amounts to a return from the fashionable Hegelian and Leibnizian position to that of the Critique of Practical Reason; the second and third are meant as a vindication against Kant himself among other moderns of the good old Greek and

In view of the character of some of my later references to Leibniz, I must say once for all that Leibniz seems to me to have stated with perfect accuracy propositions which are only in place in a libertarian philosophy, but to have misapplied them in a wholly deterministic way. Thus he more than once confuses the statement that we are often unconsciously biased in our comparative estimates of good with the very different statement that we never judge without bias, exactly as he commits the parallel exaggeration of asserting that a pendulum never really comes to rest.

scholastic doctrine of real contingency as a characteristic present everywhere in "nature." When I have done what I can to indicate very briefly the reasons which lead me to support these positions, I propose to bring this essay to an end by equally brief references to certain practical issues of the first moment which seem to me to be arbitrarily foreclosed by any moralist who allows himself to make terms with "scientific determinism." The ultimate metaphysical issue at stake, which, as so often happens, is also the supreme practical issue of the whole discussion, will then only emerge at the close of the argument.

I. LIBERUM ARBITRIUM.

It is unfortunate that the student of to-day, who comes to his subject through Ethical Studies, the Prolegomena to Ethics, and later work chiefly or largely inspired by the teaching contained in those volumes, usually has no notion, or at best a very hazy notion, of the very meaning of the phrase liberum arbitrium or libertas arbitrii. Both Green and Bradley, to say nothing of writers like Dr. Rashdall, have, I believe, been fatally misled by the unhappy passage in which Locke, as part of his more general attack on "faculty psychology," attempts to cover these phrases with verbal ridicule. I should like, if time permitted, to elucidate the real sense of the much misunderstood phrases by going back to the classic statement of the doctrine by St. Thomas in the Contra Gentiles 2 and the exposition of that statement in immortal verse given by Dante in the seventeenth and eighteenth cantos of the Purgatorio. But we may profitably retrace our way to the meaning of the great Dominican doctor by starting from a consideration of the well-known saying of a later thinker, indifferentia infimus

Essay Concerning Human Understanding, ii. 19, §§ 14, 24, 31, 40.

^{*} Summa c. Gentiles, ii. 73: quod autem voluntas sit causa contingens ex ipsius perfectione provenit, quia non habet virtutem limitatam ad unum, sed habet in potestate hunc effectum vel illum, propter quod est contingens ad utrumlibet; iii. 85: corpora caelestia non sunt causae voluntatum et electionum nostrarum.

gradus libertatis.1 To understand the point of the remark we need, of course, to remember from the outset that the word libertas is being used for something which is a characteristic universally of moral beings and proper to them. It is not meant to include under the head of libertas the mere capacity of spontaneous or internally initiated movement which we find, apparently, to some degree, in the least intelligent and most irresponsible animals. Still less is there any reference to that purely illusory freedom which is all Spinoza allows to man in the famous and flippant utterance that "a stone which was aware of its falling would think itself free." 2 We may, if we please, speak of the stone as "falling freely under gravity," but we must not equivocate so where the issues under consideration are ethical. "Freedom" such as this could be no foundation for recognition of accountability, responsibility, merit, and demerit. The saying is meant to refer to freedom in a sense in which it has a significance for morality; mere spontaneity, mere initiation of response from within, is intended to be left out of consideration. The words have also a further important significance. The "lowest degree" of freedom which deserves to be called moral is implicitly contrasted with other

- Descartes, Meditat. iv: indifferentia quam experior cum nulla me ratio in unam partem magis quam in alteram impellit est infimus gradus libertatis.
- ³ Spinoza, Ep. lxxii (Bruder) 4: Porro concipe iam, si placet, lapidem dum moveri pergit, cogitare et scire, se, quantum potest conari, ut moveri pergat. Hic sane lapis, quandoquidem sui tantummodo conatus est conscius et minimum indifferens, se liberrimum esse et nulla alia de causa in motu perseverare credet, quam quia vult. Atque haec hominum illa libertas est quam omnes habere iactant.

One should take note of the absurd "presentationalism" implied in this passage. Spinoza plainly regards our own fundamental conatus as one "object presented to our notice" among others. I believe it may be said that the average "man of science" gets at his "determinism" as follows: He fancies that he observes and "correlates" the volitions of his fellows as he might facts about crystals or germs. His deterministic scheme in the first instance recommends itself as a description of the conduct of his neighbours. Then he remembers that he too is a "neighbour" or "other" from their point of view, and therefore includes his own volitions in the scheme. If he started, as he should, with his own personal experience of willing and choosing, he would probably never dream of "determinism" at all.

degrees of moral freedom which we are to recognize as "higher." Libertas arbitrii is to be taken as the minimum necessary condition of even beginning to live the specifically moral life; it is not to be the sufficient condition of morally good life. To have it is, in itself, no more than to be on the right side of the boundary between subjects capable and subjects incapable of having moral predicates, commendatory or damnatory, enunciated of them. The problem is to ascertain what is the indispensable minimum of equipment which entitles its possessor to rank as a "moral" being, a member of what Kant calls the "kingdom of ends" and Leibniz more appropriately "the kingdom of grace."

Freedom, as we have often been told, is primarily a negative conception. To be free is always to be free from something, not subject to some impediment. We can see that this is true of that highest degree of freedom which we attribute only to a subject who is already in fruition of complete spiritual goodness. Such a being would be free in the sense that he would be unimpeded in his pursuit and enjoyment of the highest good by ignorance of its nature, over-estimation of inferior goods, deflection from his devotion to the best by outbreaks either of unreasonable cupidity and avarice, or of craven fears of what loyalty to the highest might cost him in the way of endurance, or by relapse into mere sloth and indifference. And finally he would be free from all external influences of every kind which could impede steady and perfect enjoyment of the highest. If we take such a conception of freedom au pied de la lettre, it is manifest that, since finitude of itself necessarily stands in the way of absolutely complete fruition of a perfect and infinite good, such a freedom can belong to no "creature"; it could only be attributed in its plenitude to "a being infinite and eternal." Even if we demand nothing more than that the wholly "free" being shall be able to enjoy the perfect good in act up to the measure of its own nature, still possession of such freedom as this would clearly demand not only the non posse peccare but also an absolute and final harmony of the individual with every element of his "environment."

Such a freedom plainly transcends any conceivable condition of man in the world of temporality and mutability where our present lot is cast. We may aspire to it and hope for it, and to do so much is already to be a member of the kingdom of "grace," but very certainly it is not under earthly conditions to be had in actual possession. If it is our heritage, it is at least a heritage into which our entrance is delayed until we shall be "yonder," as Plotinus says, in "glory" as Christians have said, finally and utterly. Meanwhile we have to look for the minimum of freedom compatible with spirituality somewhere between this, which is the negative side of "deiformity," full fruition of the plenitude of good, and that mere spontaneity which we share with the animals. The question is where between these two limits the freedom of the man who has barely begun his pilgrimage to perfection is to be found.

The mediaeval answer is that the minimum is to be found in libertas arbitrii. The very phrase should have been sufficient proof that by "freedom of the will" the libertarian does not mean, as Green and Bradley seem to think, "motiveless choosing." That would amount to pure haphazard or caprice, and would thus be only another name for downright irresponsibility. Such capriciousness might perhaps be called libertas, but it would have no right to the name libertas arbitrii, "freedom of will." For will means the same thing as choice, explicit or implicit, and choice is never without a "motive," or, what is the same thing, a "reason," though, as Leibniz rightly insisted, my "reasons" for my choice may often be most imperfectly apprehended even by myself.

Ethical Studies, pp. 9-11; Prolegomena to Ethics, § 6.

I add this qualification to exclude from consideration the case of purely "impulsive" action. So far as an act really is merely impulsive, it seems to me we cannot speak of either will or freedom (in the specifically moral sense) in connection with it. The business of developing character is a process of escaping from domination by "impulses." Thus Aristotle's distinction between the "willed" and the merely "voluntary" seems to me vitally important. On the case of the man who decides beforehand that he will trust in a certain situation to the "impulse" of the moment when the situation has become actual (e.g. that he will not prepare a discourse but speak as "the spirit moves him"), see the note at the end of this essay.

If I choose A rather than B, when either may be had, this can only be because at the time of choosing I judge A good and B not good, or at least not so good as A. In what sense. then, can we say that a choice is a free choice? St. Thomas's explanation seems to me to go to the root of the matter. When I am "deliberating" between A and B, he says, that is, while I am still making the comparison of their respective goodnesses on which my act of taking the one and refusing the other will ensue, my will is "indetermined to either alternative." When the comparison is over and the estimate "A is better than B" passed, this indetermination ceases; my will is now determined, or to speak in the more accurate terminology of our own psychology, I am determined to take A and leave B, and what I am determined by is this judgment of relative worth. In other words, what is demanded as a minimum condition of moral accountability is that I shall be able to make an impartial estimate, correct or otherwise, of the two relative values. It is not the case that whenever I attempt such a comparison some secret influence, the violence of a present desire, the persistence of an old opinionative prejudice, the effects of my past habits, hereditary non-rational bias, or what you please, tilts the scales of the balance. Of course, we all know that all these sources of bias do exist and may interfere with our estimates, but precisely because we are aware of the fact, a prudent man sets himself to discover these sources of prejudice and to eliminate them. Admit simply that the elimination can sometimes be achieved, that sometimes at least we act as we do because we have made an impartial comparative judgment about the relative value of two goods of which we cannot have both, and in principle you have admitted all that clear-headed libertarians mean by the "freedom of the will."

It is not pretended that we find it easy to eliminate the influence of vehement passion or long-established habit or native tendency, or that the elimination is not harder in some cases than in others. We must expect to find that the power of making impartial judgments of good is a power which can be extended by habitual attention and practice and contracted

by negligence and disuse. But if the power itself once exists, we have no right to set limits a priori to the control it may acquire over the direction of life where it is diligently exercised. "Indetermination of the will" will be a truth in two senses. We can, and all of us sometimes do, make comparative judgments of good which are not "determined" by non-rational bias, and further, the capacity of doing so can be steadily extended by diligent exercise to cover an even wider "domain."

Now there seems to be no reasonable doubt that this power of unprejudiced estimation of good and bad exists; it is the strength of the prima facie evidence for its existence which explains the repugnance regularly excited by all theories of necessitation and "scientific determinism" in men of practical common sense who have no special theory about conduct which they are resolved to defend at all costs. And it may be urged that any argument which goes to prove that what we suppose to be such impartial judgments are always inspired by unconscious prejudice must prove too much if it proves anything. If our judgments about good and evil are often warped by unconscious bias, the same thing is notoriously true about our judgments on other matters. We are all prone to fallacies of non-observation or mal-observation, of confusion and irrelevance; again, it is no easy task for each of us to detect the special types of fallacy to which he personally is most susceptible and to learn to avoid them. If we push the argument from liability to bias to its extreme conclusion, it should yield the consequence that no one has ever been convinced of the truth of any proposition by an impartial consideration of the evidence for it. And this is just the last thing the "scientific determinist" himself would be prepared to allow. He expects me to accept his deterministic conclusion as proved by the strength of his reasoning, but on his own principles he ought to hold that when I am said to be "convinced" by his argument, I never really am his convert at all; I have yielded not to the probative force of his reasoning, but to the non-rational strength of some secret bias in myself. And similarly with all other cases of apparent "conviction." There is as much or as little

ground for finding in non-rational bias the ground of all our comparative judgments of good as for tracing back all our scientific beliefs to congenital bias in favour of arguments which "beg the question" or have "undistributed middles." Yet, so far as I know, the theory has never been carried to this perfectly logical extreme. We are credited in general with the capacity for being convinced by rational considerations, and a mere arbitrary exception is made for the case in which the issue under consideration is one of good and bad. On the whole, then, there is no more serious reason to doubt our ability to form impartial judgments of the goodness of divers objects of pursuit than to doubt our ability to form such judgments in general. No reason can be produced for denying the indetermination of the will ad utrumque during deliberation which could not be equally valid as a ground for disabling human judgment on all topics whatsoever.1

It might be said that neither Green nor Bradley ever formally denied "indetermination" in this sense, though both on occasion speak as though "freedom of will" meant motiveless caprice, and that all I am claiming has been openly affirmed with great emphasis by Rashdall, a declared "determinist." It would seem, therefore, that the essence of the libertarian case cannot be an affirmation at which avowed anti-libertarians do not scruple. But I would ask you to look at the matter a little more closely. The assumption of "indetermination during deliberation" may clearly be restated in the form given to it by Sidgwick: "the perception or judgment that an act is per se the right and reasonable act to be done is an adequate motive to perform it." The difficulty to my own mind is to know whether Green or Bradley would have admitted the formula of indetermination in this equivalent transformation. Bradley's opinion can only be collected by confrontation of numerous incidental utterances scattered over the whole body

These considerations apply, as I venture to think, with peculiar force to Leibniz's persistent attempt to use libertarian formulae to cover a determinist meaning. If "the pendulum is never at rest," how, on Leibniz's principles, do we ever contrive to form a conclusion about anything strictly "according to the evidence"?

of his writings, Green's has to be gathered from the long and perplexing division of the Prolegomena concerned with the relation of will to desire. To my own mind, in both cases the result is unfavourable to a really libertarian interpretation. Both philosophers seem to hold that in all choice there is a strictly non-intellectual factor supplied by what William James calls our "passional nature." The omnipresence of this factor is only very thinly disguised by Green's metaphysical language about the "reason" which selects out of the "solicitations" thus supplied the particular one with which the rational agent is to "identify himself." It certainly seems to be by implication denied that "reason," our nature as intelligent, can ever of itself directly initiate action without the "backing" of non-rational appetition. This doctrine, which I must agree with Sidgwick in finding characteristic of the Prolegomena, involves a breach in principle with the Platonic-Aristotelian moral tradition of which Green and Bradley seem to be unaware.

In the Republic Plato has been careful to attribute to each of the famous three "figures" or "parts" in the soul its own characteristic ἐπιθυμία, and the familiar Aristotelian saying that "mere thinking originates no movement" (διάνοια αὐτὴ οὐθὲν κινεῖ) is not intended to contrast thought by itself with thought plus unintelligent appetition, but thought in genere with specifically practical thought, thought of a good to be achieved, as we see if we read to the end of the sentence (διάνοια αὐτὴ οὐθὲν κινεῖ ἀλλ' ἡ ἔνεκά του καὶ πρακτική).

* Prolegomena to Ethics, §§ 120, 143, 146 al. On the other hand, a different and truer conception is suggested in § 126, where Green says that it cannot be admitted "that those desired objects which are of most concern in the moral life of the civilized and educated man are directly dependent on animal susceptibilities at all." But even here we note (a) the qualification introduced by the "directly," which indicates a certain willingness to "hedge," (b) the still more curious and unjustifiable qualification implied in the reference to the "educated man" (as though the blessing on those who esuriunt et sitiunt institium had been addressed to "men of education"); (c) Green's abstention from any express admission that "reason" can per se supply a motive to act. Contrast the language of Price (Review of the Principal Questions of Morals, c. 8), "an affection or inclination to rectitude cannot be separated from the view of it."

Thought of this kind, according to Aristotle, does "motivate." It is our judgment of good which inspires our specific human appetition rather than non-rational appetition which secretly dictates the judgment ($\partial \rho \epsilon \gamma \delta \mu \epsilon \theta a \delta \iota \delta \tau \iota \delta \delta \kappa \epsilon \hat{\iota} \mu \hat{a} \lambda \lambda \delta \nu \hat{\eta} \delta \delta \kappa \epsilon \hat{\iota} \delta \iota \delta \tau \iota \delta \rho \epsilon \gamma \delta \mu \epsilon \theta a$). Hesitation on this point seems to me at least unconscious disloyalty to the cause of genuine morality; it opens the way at once to the "scientific" suggestion that every judgment of good is based in the end on mere libido, that "I ought" is only a disguised way of saying "I should like."

As a matter of common experience it seems patent that, on the contrary, the "I like," if felt at all, is often enough felt as a mere consequence of the judgment "I ought." When a man is offered the choice of continuing at a post to which he feels himself equal and where he is happy, or accepting a new one with responsibilities which he cannot fully gauge and involving the breaking up of an established circle of friends and associates, it may well be that before weighing the relative goodness of the alternatives proposed to him he is honestly unable to say which course he "likes best." There may be attractions, there are certain to be repulsions to overcome, on both sides, and it is not until a comparison has been made in which all personal likes and dislikes have been discounted that it is possible to say "I should like to go" or "I should like to stay." At the outset you can only say indeterminately, "I should like to take the course which on consideration I think most to the glory of God and the good of man, but as yet I do not know which course that is." Or, to put the point in another way, since what is distinctive of man is that he is an intelligent animal, it is only accordant with his nature that he should have one standing "bias," the bias, ceteris paribus, in favour of what he judges to be per se, apart from all incidental personal relishes and distastes, the reasonable thing. I Where

Reid and Kant thus seem to me right in holding that mankind regularly prefer to do what they believe to be right, unless there is a strong inducement to act otherwise. Even those who least scruple to tell lies to suit their convenience regularly prefer to tell the truth when truth-

the formulae of Green and his associates seem to me dangerous from the point of view of practical morality is that they take no adequate account of this standing human bias in favour of the reasonable. Presumably under the influence of J. S. Mill and the Utilitarians, whom they naturally wished to confute, as far as possible, from their own premisses, they tend to put all the "appetitions" between which "reason" is to "select" on one level. What is needed to bring them into full accord with the general libertarian tradition of rationalistic Ethics is a completer appreciation of Aristotle's doctrine of rational appetition, or, what comes to the same thing, an unqualified acceptance of the psychological conception of "ascending levels of conation."

If you neglect this doctrine, you are committed, as Green was, to the task of proving the most ideal aspirations of the saint or hero to be no more than "transformations" effected by intelligence on what are by origin "animal wants." But I should maintain that no amount of "transformation" of an animal want by intelligence could ever yield, for example, the hunger and thirst after righteousness. What a mere animal hungers and thirsts for is simply meat and drink, and I do not see how the "supervening" of intelligence on such a want could ever result in anything more than the elaboration of cunning devices for securing plenty of highly agreeable meat

speaking is equally convenient. If this were not so, "motiveless" lying would be much more common than it is. Any man, even the laxest, feels that a lie needs some special justification; truth-speaking needs none. Reid, Of Judgment, c.6: "It may always be expected that they [mankind] will have some regard to truth and justice, so far at least as not to swerve from them without temptation." Compare Kant's remarks about the "worst villain" (argester Bösewicht), Fundamental Principles, p. 89 (Eng. Trans.).

Prolegomena to Ethics, §§ 88-91. I believe Green's language hardly does justice to what must have been his thought, in respect of the qualitative difference between the "wants" of an animal and human "desire." Verbally he seems to make the difference no more than that in man the feeling of the "want" is accompanied by a consciousness of "self" as a permanent wanter who has had other wants in the past and will have still others in the future. Yet he must really have been alive to the fact that the truly significant difference is in the kind of thing wanted. Cf. the express statements of Prolegomena. §§ 125-126.

and drink. If some men have come to hunger and thirst after righteousness, it is because there never has been a time in the history of men when they hungered and thirsted solely, like animals, for meat and drink. To admit that human appetition has ever been solely appetition for the satisfaction of "animal wants" ought to lead you in the end to an ethic of "this world" in which "comfort," gross or refined, ranks as the summum bonum. The schoolmen who taught that our simplest appetitions for what look to be the most material satisfactions are in us blundering and tentative expressions of the aspiration to "deiformity" seem to me in the right of it against anyone who teaches that the aspiration to "deiformity" is a transformed "animal want." And again I should say that the failure to do justice to the originality of "rational" appetition in man is responsible for much of the hostility of the eminent writers of whom I am speaking to the Kantian ethic just on the point where it seems to me to be strongest, its so-called "formalism," 2 a necessary consequence of the fact that it is an Ethic for rational beings, who, as such, possess a true liberum arbitrium.

Dante, Paradiso, ii, 19:

La concreata e perpetua sete del deiforme regno cen portava veloci, quasi come il ciel vedete.

* Kant seems to me to be saying only what all sound morality must say, when he insists, as against the view that the difference between a morally good and a morally bad will is merely that the good will succeeds, the bad fails, to attain one and the same end, on the point that the difference in question must be intrinsic and therefore a formal character of the will itself. His unfortunate mistake is that, owing to his ignorance of Greek thought, he does not see that in the end the "form" and the "final cause" coalesce. Hence he forgets that the real question does not concern the end attained but the end willed and aimed at. This is not the same in the case of the good and the bad will, except that κατ' ἀναλογίαν the good man and the bad may both be said, in a sense, to aim at "felicity"; but "felicity" means very different things to the two.

Cf. Dante, Purgatorio, xvii, 133:

Altro ben è che non fa l'uom felice; non è felicità, non è la buona essenza, d'ogni ben frutto e radice.

2. Freedom and "Determinism."

On the question whether "scientific determinism" is really incompatible with the recognition of liberum arbitrium I may be briefer. I hold that it plainly is so and I think the case may be argued effectively from either end. If we start by recognizing that it is fundamental for morality that a "responsible" agent should be able to find an adequate motive to action in the perception of a given act as the right and reasonable thing to be done, it must follow that, on any theory which makes my present judgment of good the necessary consequence of earlier acts or events, there never is any act of unbiased comparison of alternatives on their own merits; hence the freedom demanded for moral responsibility can never be more than a dream, a bellum somnium no doubt, but one which, after all, has come through the ivory gate. It does not in the least mend the matter to be told, as one is told by Dr. Rashdall and others, that the past to which one is fettered is one's own past. What morality demands is that the present perception of an act as good and obligatory should be a sufficient condition of its execution. If the cause of my present conviction that the act is good and obligatory is always completely contained in the facts of my own past, if I only think A good now because I have formerly thought A' and A" good, then, say what you may, I am making no independent comparative judgment. It is not my reverence for the law of right or of God which is expressing itself in my The act is no more the expression of a dutiful spirit than the utterances of a man "possessed" are the expression of his own thought. I am tied to a something, call it my past history, ' my ancestry, my "metaphysical self," or what you please, which is not really me, and so long as I am under the compulsion of such a tyrant my condition is not bettered by the name you give the tyrant; John or Charles or James or the souveraine canaille, it is all one. Whatever we may think on other grounds of Kant's solution of the problem, he has at least the merit of making it plain that hopeless slavery to the past does not cease to be slavery because the past is to some extent

of my own making. Frankenstein's monster was of his making, but Frankenstein was no more free than the victims of Mezentius.

We may urge the same considerations from the other end. Whatever formula you choose to express your "determinism," your statement must contain as much as this. What happens at present is a definite one-valued function of something which has happened at certain specifiable dates in the past. This conception of practical dependence is always involved in the attempt to explain what we mean by a "scientific law." If the function is not one-valued for a given value of the "time variable," then, from the standpoint of natural science you are confronted with the very kind of indetermination physical science is concerned to banish from its formulae. If our choices are no more than "events" falling, with all other events, under the purview of natural science, it is inevitable that we should assume that functional dependence of the kind I have indicated is valid for them. We might indeed hold—though this would in the end involve all the difficulties of Kant's mythological single act of extra-temporal choice by which a man's whole character and destiny is irrevocably fixed—that the "arguments" of the functions are themselves antecedent choices, but our broad common-sense recognition of the intimate connection between our actual choices and other events which are not choices seems sufficient to negative such a view. Or you might hold, with the thoroughgoing naturalist, that none of these "arguments" are choices, or again you might adopt some intermediate position. In any case, the one view which is precluded on principle by determinism is the view, indispensable to morality, that the whole and sufficient "motive" for any act can be found is its now discerned goodness and reasonableness per se.1 What we mistakenly call choosing

I do not say "must be found." I may rationally choose that which already has an independent attractiveness for me. E.g., I may at once feel hungry and judge that it is right and reasonable to eat. But my point is that we need not be "attracted" by anything beyond the reasonableness of an act when we choose to perform it. If A asks B why he did so-and-so, and B replies, "Because it was obviously the reasonable

will, in fact, be making the discovery that no choice is left us. In every act of our lives we shall be in a position to say, Gott helfe mir, ich kann nicht anders, and the reason why ich kann nicht anders will be not that I know that was anders would be sin, but that certain things have occurred in the past.

I need not waste many words on exposing the fragility of the "determinist" combination which leads to this melancholy conclusion. It has been originally designed to deal with mere "natural events," to enable us to say how certain processes may be expected to go on, so far as they are not modified by our interference. When Du Bois-Reymond illustrated the conception by saying that a preternaturally gifted mathematician, like the fabled "demon" of Laplace, would need only to give the appropriate values to the time-variables of his equations in order to discover "whether when Pericles was embarking for Aegina there was a solar eclipse visible in Peiraeus, or when England will have burned her last ton of coal," he forgot that his two examples are not in pari materia. When England will have burned her last ton of coal may reasonably be held to depend on the intelligence and public spirit of generations of miners, mine-owners, Trade Union officials, and statesmen, and it is not obvious that any information on such matters can be extracted from the differential equations of the physicist. For my own part, I should say that it is a glaring petitio principii to assume that intelligent and purposive acts can be dealt with as "events" at all. Since they "occur," no doubt they are "events," but they may very well be much more than mere events, and the something more may make formulae devised to deal with events which are only events useless when applied to acts. Conceivably every attempt to exhibit genuine acts as functions of mere past events might always lead to mathematically ambiguous results. The physicist bent on bringing human conduct under his formulae might unwillingly

thing to do," A, supposing him to be satisfied of B's sincerity, will not feel that any further explanation is necessary. He understands why B acted as he did. If he does not himself think the act obviously reasonable, he may go on to say, "Why do you think it reasonable?" But he will not ask, "Why should you do what you think reasonable?"

be forced by the indeterminate character of the resulting equations to acquiescence in Pope's dictum,

Who, binding Nature fast in Fate, Left free the human will.

and thus led to profitable critical meditation on the range of validity of his own interpretation of causality.

Whatever might happen to the physicist, common experience shows that the physiological psychologist can only reconcile the facts of human life with the conception of the complete functional dependence of present choice on the past by assuming a whole elaborate mechanism of "sub-conscious" mental dispositions, or possibly "unconscious" physiological predispositions, which may lie dormant and beyond discovery for a lifetime until the special situation adapted to arouse them into action arises. I Vast hypothetical assumptions of this kind, incapable of verification, are always open to the suspicion of being mere fictions gratuitously invented to help out a defective theory in its difficulties. On the face of it, every fresh act of choice seems to be something akin to a new "creation," and it does not really add anything to the explanation of its newness to suggest that it is a manifestation of something which was there all along but "latent." What light is thrown on St. Paul's "day of Damascus" when we are told that the persecutor Saul must already have had a "latent disposition" to turn Christian which was not present in his fellowinquisitors? Is this more than a mere restatement of the fact to be explained, that Saul was converted while his associates in the expedition were not? If we take it as a real explanation and then go on to construct a spiritual biography in which Saul is credited with an actual history of mental conflict and represented as instigated to his acts of violence

occasion necessary to awaken the disposition into act "may never arise. The elderly man, after all, may not "fall in love." In that case, is it easy to believe in the reality of a "latent aisposition" which never emerges from its latency? Is purely potential being anything but another name for not-being?

by a desire to stifle his own growing suspicion that the "Galilean" might, after all, be in the right of it, what guarantee have we that this interpretation is more than a romance of our own making? (In this particular case, in fact, the historical presupposition looks to be all the other way. It seems to have been the very suddenness and completeness of the reversal of attitude which led St. Paul to feel that he had not been left to himself in the matter, but had been swayed by an actual and overwhelming irruption into the normal course of his psychical life coming from the transcendent and "wholly Other." Hence his repeated reference to himself as a "vessel of election" and a predestined apostle to the Gentiles. 1)

The point I am anxious to make, then, may be finally stated as follows. The interests of practical morality imperatively demand that time shall be real and that there shall be a real irreversibility of temporal direction. To the "Laplacean demon" it may make no difference in principle whether he is engaged in anticipating the future or in reconstructing the past. But in the moral order, the reality of time and its irreversibility are presuppositions. Moral victory and moral defeat would be alike impossible in a timeless world, and in a world in which time-order was reversible the one would be indistinguishable from the other. Whatever may be the case with time as a characteristic of "nature," time as a feature of our moral life absolutely must be marked by an irreversibility of direction which makes it impossible to assimilate "real duration" to a spatial "dimension." And from this very demand for the reality and irreversibility of temporal order in the moral life, it follows that moral responsibility demands as a condition of its genuineness that human acts shall be

Yet—and this is really the point—the men who have felt most vividly this sense of the irruption of the "supernatural" into the course of their lives seem also always to have felt equally strongly that "obedience to the heavenly vision" was an act of free, unconstrained assent, human "consent" thus co-operating with "free grace." God is held to "give" grace, not to force it on one. Cf. the stress laid by the thinkers of the mediaeval Church on the courtesy and free assent of the Virgin (fiat mihi secundum verbum tuum) to the Incarnation. It was held that Mary might have refused; her consent was consequently "meritorious."

genuinely contingent: it must be said of all "motives" of choice between one specific good and another that they "incline without necessitating," I that the assent we give to them is a "free" and unconstrained assent. If the conception appears a paradox, at least it is a paradox forced upon us if we take the moral life of man seriously.

3. REAL CONTINGENCY.

It is not really surprising that a scheme, like this of the unambiguous functional dependency of the later on the earlier both for its occurrence and its whole specific character, devised originally in the exclusive interests of *natural* science, should

In the phrase is best known from its frequent recurrence in Leibniz, who, perhaps, in view of his determinist bias, was not strictly entitled to use it. Its origin is earlier. St. Thomas (S.c.E. iii, 89) quotes from St. John Damascene the words ea quae sunt in nobis Deus praenovit sed non praedeterminavit and appends the explanation: quae sunt in nobis divinae determinationi non esse subjects quasi ab ea necessitatem accipientia.

It has been maintained, on the other hand, that the apprehended goodness of the object of choice does necessitate choice in those who apprehend it. "We needs must love the highest when we see it." If this only means that, as Socrates and Plato held, he who sees the good will pursue it, I have no quarrel with the statement. But I think the use of the word "necessitate" is misleading. It puts choice of the apprehended good on a level with assent to a conclusion validly inferred from self-evident premisses. The latter I should say is "necessitated." In such a case, there is no freedom to refuse assent, and consequently assent given is not free assent. But a judgment "this is good" or "this is a higher good than that "never seems to me to have complete self-evidence. It involves an act of faith of a moral character, and cannot be presumed to be evident omnibus, semper, ubique. Quoad nos moral judgments are not self-evident. As Aristotle said, you need to be already a good man to find them evident. And you have already exercised moral choice throughout the process by which you become good.

The view of St. Thomas and Dante is that we must distinguish the appetition of "one's proper good" in genere from appetition of this or that determinate object as one's proper good. The first is necessitated and merely "natural"; it is the second which is specifically moral and nonnecessitated. I cannot help desiring my own felicity; I can help identifying my felicity with, e.g., sensual ease or unlimited material wealth. It is here, in the judgment "there is something much better for me than having a good time or becoming a millionaire," that the act of faith of which I have spoken comes in.

break down when we try to apply it to the acts of beings with a moral nature. But we may go further and ask whether it is necessary in physical science itself to regard the scheme as realized in its perfection even in purely physical events. (By "purely physical events" I mean here events not in any way dependent on purposive human interference.) If we mean by "laws of nature" formulae expressing such complete functional dependence of later events on earlier events and on nothing else, it may be doubtful whether science ever has established or ever will establish a single "law of nature." It is too often forgotten that complete dependence does not mean merely that if the earlier events had not happened, the later would not happen either. It is also meant that the complete character, the "what," of the later event is wholly dependent, no less than its "that," on the "what" of the earlier. Hence it is pertinent to remember that no science can ever claim to be able to calculate any concrete event in the whole of its concrete individuality. The correlations we establish are never between a whole concrete event and other concrete events; they are always correlations between selected universal characteristics of the one and similar characteristics of the other. Thus, to consider the study in which calculation has been brought to its highest pitch of exactness, the astronomer is popularly said to be able to calculate eclipses of the sun for remote times past and future. But an eclipse of the sun is not the whole of a concrete event; it is a partial component of a number of very complex events. The astronomer may tell me that at a given date the moon will be in the direct line between a certain region of the earth's surface and the solar disc. He cannot as yet tell me whether at a given spot in that region, on that occasion, the sky will be clear and observation possible. To go back to Du Bois-Reymond's example, the astronomer may be able to tell me "whether there was an eclipse of the sun visible at Peiraeus as Pericles was embarking for Aegina." He simply cannot tell me whether the sky was unclouded or, if it was, whether Pericles saw the eclipse, and, if he did, how it impressed him. Conceivably, I suppose,

meteorology might hereafter be developed to such a degree of accuracy that it would be possible to ascertain that the weather conditions made it possible for Pericles to be aware of the obscuration of the solar disc by the moon, though I should presume that this is indefinitely improbable. But even so, this leaves the concrete event undetermined in all but one or two of its simplest characteristics. To know the concrete event, I should need to know, e.g., whether Pericles was looking at the sky or was too deeply occupied in attending to the last instructions he had received from the ecclesia or in taking leave of Aspasia to have eyes for what was going on, what was the tonnage of his vessel, whether it had its full complement of hands, what the sailors were saying to one another as they lowered the gangway, and what comments Socrates and Chaerephon, if they were looking on, were making on the scene.

Even this is not all. Even the conjunction of the two partial event-constituents—eclipse visible, embarkation of Pericles—cannot be said to be constatable with absolute certainty. It is out of the question to date an event in ancient history such as an embarkation of Pericles to the hour and minute, and an eclipse is an affair of minutes. I suppose, also (speaking under correction), that there must be some margin of possible error in the dating of a remote eclipse itself. Thus, it may be confidently asserted that there was a total eclipse of the sun visible in Asia Minor on May 12th, o.s., 585 B.C. But—I only ask the question, not knowing the answer—is the astronomer prepared to say to the hour and minute of that day exactly when the eclipse would be visible from the market-place of Miletus or from the piece of ground where the Medes and Lydians were fighting?

If the past, in its full detail, would seem to be thus irrecoverable, it is even more clear that the future cannot be anticipated in detail. No doubt an astronomer can tell me on what days, if any, there will be solar eclipses visible from Edinburgh in the year 2024 (supposing, that is, that the cursus ordinarius of nature continues so long without unforeseeable disturbance). But I see no reason to think that any powers of observation

and calculation would enable him to tell me what will be the concrete event of which such an eclipse will be a partial constituent, e.g., whether there will then be an Observatory at Edinburgh or an Astronomer-Royal for Scotland to make observations, and if there is, whether he will be tall or short, dark or fair, and what his name will be.

These reflections may seem trivial, but the principle they illustrate is far from trivial. As Leibniz said long ago, the course of events does not depend exclusively on "laws." You might conceivably have a world where the "laws of motion" are exactly what they are in our actual world, and yet its detail might be different in every particular. To use the language of Chalmers and Mill, we have to appeal in all our explanations of the actual not only to "laws" but to "collocations." Science, which hates to accept anything whatever as mere bare "given fact," is always trying, with much success, to reduce the "collocations" with which it starts as given to mere consequences of "laws." But every success in such reduction is achieved at the price of acquiescence in some assumption of an earlier and more ultimate "collocation." Without "collocations" which have to be taken as "brute fact," as there we do not know how or why, the functional dependences we call "laws" would reduce to functions without any arguments and would thus become as insignificant as the symbol f or ϕ before a blank. Here we clearly come upon an inevitable limit to the whole work of scientific explanation. As M. Émile Meyerson has argued in his recent brilliant work l'Explication dans les Sciences, the paradox of scientific explanation is that it gets rid of the unexplained and in that sense irrational in one place only on condition of reintroducing it somewhere else. Thus, as M. Meyerson says, it is a sort of standing scandal to the scientific mind that the whole movement of things should

Thus in Leibniz's own infinity of "possible worlds" the laws of motion are supposed to be the same for each (since he held that the formulae which state them are "analytical" propositions). What is different as between one such world and another is the "collocations." (Though how this difference is compatible with his other dictum that all true propositions are analytical is a further question.)

not have a periodic rhythm. Why does not the "universe" have a period? Why is there no cyclical recurrence, no "great year," as we see there are lesser years? The "principle of Carnot" removes the apparent "irrationality." It makes us, up to a point, see why the whole course of nature never repeats. itself. But the same principle of Carnot, while it removes one "irrational," introduces another; it requires us in our explanations to start with a distribution of thermal energy which is infinitely improbable. In a still more recent work, La déduction relativiste, M. Meyerson makes the point of his criticism still plainer. What gives the "generalized theory of relativity" at once its fascination for the physicist by instinct and the repellent character it has for the average non-scientific man is precisely that it seems to eliminate the ultimate "irrational," stuff, "first matter," from scientific theory. It achieves what the greatest of all rationalists among modern philosophers, Descartes, dreamed of three hundred years ago, the identification of "matter" with "extension." To the mind bent on "scientific explanation" this reduction of matter to extension has all along been the conscious or unconscious aim of intellectual endeavour, because to such a mind geometry inevitably appears as something inherently rational and self-explanatory. From the days of the Pythagoreans and Plato geometrical demonstration has always appeared to be the ideal type of complete rationality. Hence the apparent necessity, driven home by the work of Newton, of recognizing matter and gravitation as ultimates in physics, has never been admitted without reluctance. The demand to be shown a "cause of gravitation," which Newton himself, as we see from the famous concluding Scholium to the Principia, felt as strongly as any one, would only be satisfied in the end by the formulation of a body of laws of motion which will actually include the gravitation-formula as a constituent or immediate consequence, and such a reformulation of the laws of motion obviously amounts to a complete resolution of "matter" into extension. The extraordinary welcome which the work of Einstein and those who have followed him has received is

manifestly due to the fact that the "generalized relativity theory" carries out this programme and eliminates the two great outstanding "brute facts" of physics, gravitation and matter.¹

And yet, when we come to reflect a second time, even in this latest refinement of theory, the "irrational" has not been finally subdued. In identifying matter with space, we have had to desert the old Euclidean conception of space itself as something everywhere uniform in pattern. We have had to amalgamate space and time, and the consequence is that the space or space-time of the new physicist is variegated and nonuniform. A geometry which will fit one small region of it will not equally fit all regions. If we want our geometry to be exact, it has to be an "infinitesimal" geometry, valid only for regions of vanishing smallness. As it is metaphorically put, the four-dimensional "space," to call it so, of the new physicist is full of wrinkles, and the different wrinkles are not even all replicas of one single pattern. Hence the "irrational" breaks out again. We have to take it as a "brute fact "that there is a "wrinkle" of such and such magnitude and character in just such a region of the space-time continuance. Why the "wrinkle" should be here and not "a little further on" and why it should be neither more nor less wrinkled than it is, we cannot say; we have to sit down with the fact. No doubt if the Einsteinian physics are permanently adopted by men of science some attempt will yet be made to "explain" these facts. But we can easily see that if ever they are explained it will only be by reference to something else which must be taken as "given" by reflecting that the complete explanation of everything, the resolution of all "collocations" without remainder into "laws," would be equivalent to the deduction of the detail of the real world from a pure and simple nothing. A fully "explained" world would be indistinguishable from pure non-being.

There are certain conclusions, not drawn by M. Meyerson, to which his reasoning seems to me to point irresistibly.

¹ Meyerson, La déduction relativiste, c. 5.

Chalmers has often been harshly criticized for his alleged uncritical readiness to make the necessity of including unexplained "collocations" in our scientific accounts of the natural world into an argument for the existence of God as their author. But I think it must be owned in fairness that his reasoning was at least unanswerable as a proof that rigid "determination by laws" from "data," "the given," "brute fact," amounts to a proof that contingency or indetermination is just as much a feature of nature and of every part of nature as determination by laws. When it is urged against the libertarian that his doctrine implies, as I admit it does, the reality of the contingent, he is fully entitled to reply that this should be regarded as a presumption in its favour. On a clear inspection contingency is found to be a universal character of whatever is temporal and mutable. The only being in which contingency could have no place would be one which contained entirely within itself its own raison d'être, and, by consequence, the raison d'être of everything else. Such a being could be neither any lesser part or constituent of nature, nor the "whole" of nature, if we can intelligibly talk of a whole of nature. It would be the God of the "ontological" proof, a source of nature, but an absolutely transcendent and supernatural source, as a real man might be said to be a transcendent source of his own shadow or his own portrait. (The man is the source of both shadow and portrait, but he is not himself either a shadow or a portrait.)

In man, made in the image of God, may we not see the same transcendence in a diminished and contracted form? Things, once given a particular "collocation" of them, are tied down by the fact of the collocation and the laws of their interconnection to a determinate course of behaviour; man, dependent as he is on his own past and his environment, never is completely tied, unless he is actually coerced, by physical violence, and physical violence has no power over the interior act of will. At the worst man, not under actual physical constraint, always has the alternative "do this—or take such and such consequences," and he can opt to face the consequences. Hence the libertarian formula that "motives" incline without necessitating.

But the formula is only justified if we grant that the only complete determination in moral matters is one which issues from our judgments of good and bad, not one which precedes and causes them. Let me end with two practical corollaries.

(a) On any of the current determinist theories, "hard" or "soft," it would seem to follow that for any one of us there are virtues which he certainly cannot attain, sins which he cannot avoid, temptations which he cannot resist. It is an easy stage from this position to the further one that an intelligent elder friend and monitor might be able to tell me in advance which are for me the unattainable virtues, unavoidable sins, and irresistible temptations. Now what would be the practical consequences if shrewd and experienced educators undertook to convey this knowledge to their pupils? I can hardly doubt that they would be moral sloth and contented unrepenting sinning on the largest scale. All of us who have the cause of practical morality at heart would pretty certainly agree that the observant teacher ought at least to make it a point of conscience to keep such dangerous knowledge locked up in his own breast. Indeed, I believe we should go further. We should hold that in actual intercourse with his juniors the determinist preceptor would be morally bound to commit the pious fraud of teaching them that no temptation is irresistible, no sin necessitated, no height of virtue inaccessible. Yet a conscientious man would surely feel very uneasy at the prospect of finding himself committed, as a matter of duty, to habitual lying for good ends. He might, indeed, take refuge in Bradley's remark that we can never be absolutely certain that a given wrong-doer has become incapable of amendment and may therefore in practice charitably treat him as capable of reclamation. But we must remember that in the determinist's mind there is such a point at which a man becomes hopelessly reprobate, and though you may not absolutely know that I have reached that point, you may have shrewd and reasonable suspicion. If one has such suspicions, it is almost impossible to keep them from betraying themselves, especially where they concern those with whom we have to do most intimately, and then the mischief

is already wrought. It is our moral duty, as it seems to me, if there is an equally reasonable theory of the nature of moral action which makes it possible to believe, as well as to say, that no man is utterly irredeemable and no vice of blood or habit wholly unconquerable, to opt for the more hopeful view. We ought to think nobly and not meanly of the soul. The more nobly we think of it, the nobler is the response of another human soul to our treatment of it likely to be.

(b) "Scientific determinism" is a purely "this-world" and secular doctrine. To include it into our Ethics means that we confine ourself from the outset of our practical philosophy to a "this-world" view of man's destiny and man's good. All the factors regarded by the scientific determinist turned moralist as influencing the course of men's actions are factors which belong exclusively to the secular and naturalistic order. The windows of a determinist Ethics are resolutely shut against all irradiations from the supernatural and eternal. Of course I am not proposing that it should be simply presupposed, without reason assigned, that there are such irradiations and that man is a denizen of an eternal as well as of a temporal world. But there is much in human life, including all the thoughts and feelings which have inspired religion in all its forms, which must be dismissed unexamined as mere illusion if our interior life is to be made part of the natural order pure and simple. I do most earnestly protest that it is intolerable presumption in a moralist to assume ab initio that there are not influences at work in man's soul (the free grace of God, grace given in response to the prayer of faith, or mediated by the great Christian sacraments, or, for the matter of that, by many another channel) of which, from the nature of the case, scientific determinism can take no account.1

Such an Indeterminism as I would advocate naturally does not simply assume that these influences from beyond "nature" are real. On that question the last word must remain with those who have received the gifts, and it is, no doubt, a logical possibility that the class of "recipients of grace" is empty.

For "He giveth not the spirit by measure."

But Indeterminism, unlike Determinism, is not wedded to the view that the natural order is the only order there is. Its windows are open to the spiritual sun, if spiritual sun there be, not shuttered and barred against it. It need not be content with any good thing less than "deiformity" as its "good for man." It can contemplate, as no doctrine which, under any disguise, subjects man's will to circumstance can, a day when it may be said to such creatures as each of ourselves:

Libero, dritto e sano è tuo arbitrio, e fallo fora non fare a suo senno; perch' io te sopra te corono e mitrio.

To translate undying poetry into prose, the man who has won his full moral freedom is the man who is dominus sui. But if a creature is ever to become dominus sui in act, he must from the first enjoy a corresponding potentiality. What the required potentiality is has been stated by the same supreme poet whom I have just quoted in words to which I can add nothing and from which I would take nothing away.

"Iudicium medium est apprehensionis et appetitus: nam primo res apprehenditur, deinde apprehensa bona vel mala iudicatur, et ultimo iudicans prosequitur sive fugit. Si ergo iudicium moveat omnino appetitum et nullo modo preveniatur ab eo, liberum est; si vero ab appetitu quocumque modo preveniente iudicium moveatur, liberum esse non potest quia non a se sed ab alio captivum trahitur. Et hinc est quod bruta iudicium liberum habere non possunt, quia eorum iudicia semper ab appetitu preveniuntur."—Dante: Monarchia, i, 12, 4-5).

I may be asked whether a man who "acts on impulse" is not free. I should have said that if he acts simply on natural impulse he is not free: domination by impulses is a dreadful servitude. But what then of a man who reflectively determines that in a given case he will not plan his precise words and acts in advance but act as he feels moved to do when the need for action arises? Well, (I) this choice itself is deliberate, not impulsive, and (2) I should say he would be morally safe only on condition that his impulses had already been so disciplined to the "rule of the mean" that they are no longer mere impulses, suggestions of the moment, but really embody and issue from a whole life of serious rational choice. They are "last" rather than "first" impressions.

A BIOLOGIST'S PHILOSOPHY

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BIOGRAPHICAL

I was born in East Lothian in 1861, with hereditary inclinations to the study of Natural History, also with strong theological From the village school I passed to Edinburgh University, where I followed the then fixed M.A. course with many science classes in addition. I owe more than I can say to the teaching of Patrick Geddes, especially to his insistence on the relations of biology to other disciplines. After some theological study, mingled with more science, I went to work under Haeckel at Jena, by whom I was greatly influenced, though afterwards rather in the direction of reaction. Later on I studied zoology under Schulze in Berlin, and was incidentally much impressed by Pfleiderer's lectures on the Philosophy of Religion. With much reading of Spencer and other evolutionists, I combined experience at various marine biological stations, always taking a keen interest in open-air "natural history." In 1887 I started teaching zoology in the extra-mural School of Medicine in Edinburgh, where I remained till I was appointed in 1899 to the Chair of Natural History in the University of Aberdeen. I have also held various Lectureships: Thomson Lecturer, United Free Church College, Aberdeen; Bross Lecturer, Lake Forest University; Gifford Lecturer, St. Andrews; Morse Lecturer, Union Theological Seminary, New York; Terry Lecturer at Yale.

A BIOLOGIST'S PHILOSOPHY

THIS is simply a frank, and probably rather naïve, presentment of the synoptic view which comes to one after forty years and more of biological observation and reflection. It is not a philosophy of biology, which would mainly mean a systematic criticism of such biological categories as organism, development, heredity, and evolution. That has been essayed from different points of view in Driesch's Gifford Lectures (The Science and Philosophy of the Organism, 1908), Johnstone's Philosophy of Biology, 1914, and other works; and it continues to-day, as But the point of this paper is rather to indicate how a discipline in biology, including obviously reflection on its categories or central concepts, colours the synoptic picture one tries to make of all orders of facts. Perhaps one may venture to say, furthermore, that the would-be philosophical view here sketched—sincerity perhaps its chief value—is deeply influenced not merely by experience in biological investigation and reflection, but by an intimate soiourning with Animate Nature. For convictions come in the school of the woods and the shore as well as in the laboratory. Perhaps Huxley would have modified his view of Animate Nature if he had been more of a field-naturalist.

§ 1. THE AUTONOMY OF BIOLOGY.

The biologist sees before him—very clearly because his science is central—three great orders of facts: (1) the domain of non-living things, the cosmosphere; (2) the realm of organisms, the biosphere; and (3) the kingdom of man and his societies, the sociosphere, sit venia verbo or verbis. These three distinguish-

able orders of facts appear to require different conceptual formulæ for their satisfactory description, for an organism is a new synthesis compared with a nebula or a crystal, and a human societary form is more than a crowd of mammals-more even than a herd. Everyone agrees that there is a chemistry and physics of the living body-legitimate, illuminating, and promiseful; but they do not serve to describe to us the behaviour, the development, or the evolution of the living creature. Biophysics and bio-chemistry are indispensable, but they are not exhaustive when we think of the animal as a whole. They are what Comte called the legitimate materialisms of the subject. We agree with Driesch's conclusion, without necessarily accepting all his arguments, that Biology is autonomous. It must have a laboratory to itself, where the newness of the living creature is not lost amongst the properties of colloids and the powers of ferments-fundamental as these are. Similarly, while mathematics, chemistry, physics, and biology have their place as legitimate materialisms in the study of sociology, which often needs them badly, the biologist has a fellow feeling with the sociologist who claims autonomy for his young science. For man is a new synthesis compared with even the highest mammals, and his society is an incipient new synthesis too. The ductless or endocrinal glands are very influential in the life of the individual, but to say that they "determine the personality" is an illegitimate "biologism." The beaver village and the ant-hill are alike admirable, but to regard a human society as only a herd to the third power is a false simplicity—another "biologism," or illegitimate materialism.

Before leaving the picture of the cosmosphere enveloping and interpenetrating the biosphere, and similarly of the biosphere enveloping and interpenetrating the sociosphere, it is interesting and of some importance to notice that the spheres cut into one another. Thus in his domestication and cultivation achievements man takes a big slice of the biosphere into his kingdom. The domestic dog is not scientifically interpretable apart from its partnership with man, and it is not fanciful to say that man has instilled something of himself into the garden rose, not to

speak of the apple. But a minus intersection is illustrated when man stupefies a wild animal or impoverishes the biosphere by his ruthless exterminations. Still worse, however, is that kind of intersection that is illustrated when the animal gets the upper hand in man, when the biosphere is allowed to encroach on the sociosphere, when there is degeneracy and abbrutisement. What is decent in a chimpanzee is unspeakably abominable in man.

We must not labour the point, but it is of value to picture the boundaries of the three spheres or ellipses as swaying and inter-osculating. When the white ants build a great termitary, or the coral-polyps a barrier-reef a thousand miles long, they are taking part of the cosmosphere into their realm; on the other hand, an animal or a plant may take so much of the inorganic into itself that it seriously reduces the bed of the living stream, and life becomes a slender rill, as in some corals and calcareous Algæ. So men may over-cultivate their animal nature—their imperfectly humanized bodies—the bathos being what St. Paul referred to in the scathing words, "whose God is their belly."

§ 2. DESCRIPTIVE NATURALISM.

The biologist, as such, holds firmly to descriptive naturalism, which does not necessarily imply interpretative naturalism. He seeks to describe what happens in terms of the factors given in the experimentally verifiable system of things. He does not feel sure that he has as yet come to know all these factors, but he is radically opposed to every attempt to eke out empirical factors with subsidies from transcendental treasuries. He must keep to one universe of discourse at a time, and thus he does not sympathize with the suggestion of Alfred Russel Wallace and others that "spiritual influxes" have operated at intervals in assisting the evolving organism over difficult stiles. That new aspects of reality have from time to time emerged, the biologist sees clearly; but mysterious as these may remain, it is safer to say that we do not understand them, than to attempt

a mixed description in terms of formulæ partly empirical and partly mystical. To attach great importance to the mental aspect of life would not of course be mystical, for we are sure that "mind" often counts for much, or even most; but to lug in a "spiritual influx," as if there were two worlds, is a kind of joukery-pawkery from which the ordinary biologist recoils.

Biology is built up, as far as possible, by reflection on the impersonal data of observation and experiment. It is summed up in descriptive formulæ, some of which have to include at present unanalysed terms, such as "development" or "variation," while others are lowest common denominators, such as colloidal protoplasm in the course of metabolism.

§ 3. THE ORGANISM AS A HISTORIC BEING.

As the biologist sees before him an ever-changing phase of a process of becoming, his formulations must have a genetic or historical form. Even the more static sub-sciences, such as anatomy and taxonomy, have to be studied historically. The dry bones live in the glow of evolutionist morphology. The biologist is always saying to himself: "Becoming, Being, and Having Been." Darwinism has brought about this dominance of the kinetic over the static outlook.

Yet it is not merely that the biologist sees all his organisms in flux; he has hold of something deeper—that the organism is essentially a historic being. That is to say, one of its insignia is a capacity for enregistering the past. W. K. Clifford was one of the first to state this open secret: "It is the peculiarity of living things not merely that they change under the influence of surrounding circumstances, but that any change that takes place in them is not lost, but retained, and, as it were, built into the organism to serve as the foundation for future actions." It is one of Bergson's services to have emphasized the same idea: "Its past, in its entirety, is prolonged into its present, and abides there, actual and acting." This fundamental idea has an individual and a racial application. In the individual

lifetime there is a somatic enregistration of experiences, in addition to such cerebral engrams as may be the protoplasmic analogues of true memory. Thus in discussing the behaviour of the starfish, Jennings says: "The precise way each part shall act under the influence of the stimulus must be determined by the past history of that part; by the stimuli that have acted upon it, by the reactions which it has given, by the results which these reactions have produced (as well as by the present relations of this part to other parts, and by the immediate effects of its present action). We know as solidly as we know anything in physiology that the history of an organism does modify it and its actions—in ways not yet thoroughly understood, doubtless, yet none the less real." This is part of what is meant by "organic memory" in the individual. Whether its enregistrations can have a specific and representative effect on the germ-cells, and thus influence the offspring in the same direction, is the still undecided question: Are individually acquired somatic modifications transmissible? For emphasis on individual enregistration—one aspect of "organic memory" we owe much to the physiologist Hering and to Samuel Butler. In his theory of the Mneme, Semon carried the idea to its neo-Lamarckian limit, maintaining that individually acquired engrams could repercuss specifically on the germ-plasm, and thus become racial assets or liabilities. Professor E. W. MacBride is perhaps the most distinguished living champion of a revised Lamarckian position. See his Heredity (1924).

But when Weismann and Galton made the idea of germinal continuity clear, thus explaining how it is that like tends to beget like, they also showed how unsatisfactory and unconvincing was the evidence in support of the view that somatic modifications can be entailed, even in a slight representative degree, from parents to offspring. Then it became necessary to think of some other way in which the organism, racially considered, is a historic being. Thus many biologists saw the organism hereditarily endowed not with dints and imprints due to peculiarities of "nurture," but with the initiatives or new departures originated by previous generations of implicit

organisms, that is to say germ-cells. No one doubts that a germinal novelty—due perhaps to some shuffling of the hereditary cards before or during fertilization-may be continued in subsequent generations. The possibility is implied in the idea of germinal continuity; and everyone knows that particular new departures, like night blindness and brachydactyly, may persist for many generations. If the new departure is such that it seriously handicaps the explicit organism, which has always to play its hereditary hand of cards, then it cannot last long. On the other hand, if the new departure is advantageous to the organism and is heritable, it is likely to be added to the racial treasury. Our present point is that even if there is no further evidence suggesting the transmission of acquired characters, and if the critics explain away the few cases which at present point in the direction of such transmission, the organism remains a historic being, the custodian of all the past germinal variations that have been thoroughly approved of in the struggle for existence. We have lingered over this characteristic of living creatures because it is one of the most distinctive. Rightly appreciated, it colours the whole of biology, and the philosophical picture that the biologist paints.

§ 4. DIFFERENT MODES OF BECOMING.

Lack of clearness is often due to having too few words, and that is well illustrated by the badly over-worked word evolution, which is applied in so many fields widely different from one another. If we qualify it by using the adjective "organic," what precisely do we mean? Organic evolution is a natural process of continuous racial change in a definite direction, in the course of which distinctively new individualities arise, take root, and flourish, alongside of or in place of the originative stock. When several different parts of the organism are evolving simultaneously, it will be necessary to say "in a definite direction or in several definite directions."

But it seems to make for confusion when this term "organic evolution," which is a racial concept, is mixed up with the

term "development," which most biologists are now careful to restrict to the *individual becoming*—e.g. the ontogeny of the chick out of the egg, the frog from the tadpole, the moth from the chrysalis. In a recent lecture on "The Concept of Evolution," Joseph trounces the biologists for their vague and ambiguous use of the word, but he proceeds in a deliberate way to mix up "evolution" and "development," and this does not seem to us to make for progress. Organic evolution is a process of racial becoming or phylogeny; development is a process of individual becoming or ontogeny; and it was one of Hacckel's great services to correlate the two, saying that ontogeny tends to recapitulate phylogeny. He was not, of course, the initiator of this idea, but he was one of its clearest expositors.

We would suggest that, except for conversational purposes, the word "history" should be restricted to the kingdom of man. For while the idea of organic evolution expresses in some measure a projection of the concept of human history on Animate Nature, the differences between organic evolution and human history are in kind, not merely in degree. For man is more or less aware of his past history, but theirs is hidden from the beasts; and although all active organisms share in their own evolution, they do not rise to the level of deliberately controlling it as man seeks to do. The most that animals do is to work towards a concrete personal end. Thirdly, while there are some instances among animals of permanent products that last for several generations, as in a termitary, or a beavercanal, these are not more than slight anticipations of what is so characteristic of mankind—the growth of a social heritage, from another point of view, social environment, in which some of the gains of the past are enregistered, hardly less efficiently than others are continued in the germ-plasm. For these and other reasons, therefore, we see that the concept of organic evolution is distinctively different from that of human history. Only confusion of thought can result from the promiscuous use of analogous terms which may be kept apart without any pedantry.

When we think of another kind of becoming—that of the

solar system—we recognize great differences as compared with organic evolution. For in the majestic process by which the earth and the other planets were differentiated from the parental sun, there was no elimination or appreciable loss. There was a re-arrangement of the Energy-Matter, but no long-drawn-out process of sifting, such as we find in Natural Selection. It is characteristic of Organic Evolution that many organisms which share in the struggle do not enter into the promises. There have been many lost races and many transient species—on even to Neanderthal Man, who was no ancestor of ours, but a transient collateral. Perhaps some word like genesis would serve for the cosmic becoming.

The processes in the domain of things that remind us most of the organismal are (a) the radio-active changes and (b) the achievements of the synthetic chemist. As to the radio-active transmutations, we know, for instance, that the metal uranium slowly disintegrates, through a succession of stages, into helium gas and a form of lead. This might be compared to the transformation of species. But while lead is quite different from its parent or ancestor uranium, we know that the transmutation is very quantitative. It implies no more than changes in the numbers and dispositions of the electrons and protons of which all kinds of matter consist. Perhaps, however, if we knew enough, we should see that the change from one species to another is not so qualitative as it seems; in some cases it may merely mean the rise of a new protein.

It is noteworthy, however, that in the world to-day the chemico-physical clocks seem to be all running down, whereas the living clocks are able to wind themselves up. Uranium dies slowly into lead, but lead does not wind itself up again into uranium. It looks as if the time of chemical synthesis in Nature was over for the present, except where the chemist insists on being a little creator. For he can certainly wind up the clock and evoke a great complexity out of relatively simple materials. The new carbon-compounds that he makes have some resemblances to new species, and one might compare the synthetic chemist to a Mendelian breeder who grafts the desira-

bilities of a new variant on to the stability of an old stock. Where the comparison leaves us in the lurch is that we do not know what in the natural world of non-living things could take the place of the creative chemist in the laboratory, or even of Natural Selection in the realm of organisms. But our simple point here is that it makes for clearness to keep separate terms for the different processes of becoming, for they certainly differ as much as they agree. Organic evolution, individual development, human history, cosmic genesis, and chemical transmutation are all very different.

§ 5. THE LIMITATIONS OF BIOLOGY.

Like every other science, Biology is self-limited in its aim—which is descriptive or formulative. Since the days of Kirchhoff, let us say, this has been increasingly recognized, that science aims at formulating what goes on, at summing up the routine of our experience in what are called Laws of Nature. The only kind of "explanation" that science offers is that reached by reducing complex phenomena to simpler terms, or by saying that this puzzling event is a particular case of chemical law No. 5 and physical law No. 7, or by showing a remarkable result to be the outcome of a long genetic-developmental or evolutionary-process.

But it will not do to think of this descriptive rôle of science too narrowly. (1) Thus the formulation in terms of thought-economizing "laws" usually requires previous analysis, in the course of which the data are reduced to their lowest common denominator (or denominators if they are heterogeneous). In this process of reduction there is a risk of some fraction of reality being lost sight of, as when the enthusiast over the rôle of tropistic behaviour gets rid altogether of a "mind" that counts. (2) The descriptive account that science gives cannot remain merely a formulation of what is; it must also be historical or genetic, for the world is in flux. Moreover, the account of becoming must be causal as well as modal. Thus it is a slow business to change palæontography (modal descrip-

tion) into palæontology (causal ætiology); or embryography, which is the relatively easy description of a sequence of developmental stages, into true embryology, which Roux called Entwicklungsmechanik. (3) It is often said with some dogmatism that science has nothing to do with the question "Why?" Its only business is to formulate the way in which particular configurations or collocations come to be as they are. Its questions are "How" and "Whence." Now this is the kind of methodological statement that comes naturally from experts in the exact or kinematical sciences. For in chemico-physical sciences, presumed to be fundamentally mechanical, the questions "How" and "Whence" suffice, except when we insist on taking a large evolutionary view. But in bio-psychological sciences, where we have to deal with purposive individuals, the scientific description is inadequate unless we also ask the question "Why?" Whenever there is individuality, actions have a significance in relation to the persistence and well-being of the creature. The indignant cat stands up to the obtrusive dog, and we can give a reasonable account of what takes placethe emotion whatever it may be, the nervous thrill, the excitation of the supra-renal bodies, the increased secretion of adrenalin, its rapid distribution by the blood, the consequent contraction of the minute muscles that make the hairs stand on end! But our description is unsatisfactory unless it includes reference to the usefulness of the reaction. Of course the cat does not deliberately bring it about, but there is a "why?" to be asked and answered before we have made sense of what we see. In the course of many generations the reaction has been found to pay. It is granted at once that we ask a scientific, not a transcendental "why?" We do not inquire into the ultimate significance of events; there is no attempt at philosophical interpretation.

The unscientific are apt to be bluffed by the apparent completeness of the scientific description, and there is no doubt that it often attains to a close fit with reality. This is proved by the basis it affords for prediction—for prediction that comes true. But the biologist is dealing with very complex syntheses

compared with stars and crystals and dewdrops in the domain of non-living things. Hence there is much experimental indeterminism. The biologist can predict the almost certain reaction to an often-repeated stimulus; with Mendel to help him, he can describe as well as count his chickens before they are hatched. Yet Biology remains in considerable part a very inexact science. Three good observations will suffice for predicting the return of a comet, but ten times that number will not tell us how the cat will jump. The individual counts in Biology, and is a purposive agent. The whirligig beetles on the pond transcend the stars in their courses.

We need not dwell on the limitation involved in having still to take "organisms" as given. It is not known how they arose; and the biologist has not fathomed the essential secret of life. He may have his conviction that the first living creatures emerged from amidst colloidal organic slime activated by ferments; but he does not know almost anything about it. Perhaps the most important fact that he knows is the discovery of Baly and his collaborateurs that light shining on water and carbon-dioxide can synthetize first formaldehyde and then sugar, and that the formaldehyde can be induced in the light of a quartz mercury lamp to unite with nitrates, thus forming nitrogenous carbon-compounds approaching the proteins which are characteristic of living matter. Abiogenesis is knocking at the biologist's door, and yet with all he knows of the properties of colloids and the metabolism of proteins, he cannot as yet, even in imagination, synthetize his primitive organisms, or tell us what it is that enables the Amœba to respond effectively to its environment and continue as a going concern that trades with time. It is open to biologists to say: "We shall push Bio-chemistry and Bio-physics for all they are worth, but since these do not at present adequately describe the whole life of the creature, we shall complete our scientific thought-model by utilizing the simplest expressions of the residual phenomena as we find them in the primitive unicellular organisms. And, of course, we must throw in something analogous to our own 'mind,' for we cannot get that out of colloids." It is no

reproach to biologists that they should argue in this way, but as long as they postulate irreducibles, such as "irritability," "enregistration," "growth," "reproduction," "development," and "variability," they must not speak of there being "one science of nature."

The biologist, as biologist, catches the fishes which the meshes of the net he uses are adjusted to catch, and if he is frank with himself he must be continually impressed with the abstractness of his science. If he has arranged the meshes so that they will only catch metabolism, he cannot directly demonstrate the presence of mentality in his sea. Especially as fieldnaturalist, he is continually impressed with that practically omnipresent quality of organisms which we call beauty; this is a real part of his experience, and yet it is only in small measure relevant to his biological descriptions, for instance in connection with preferential mating. Beauty is one facet of what the biologist studies, and yet biological methods can hardly measure even its angles. Thus in dealing with great complexes like Animate Nature, especially, as we have said, when he' sojourns in their midst, and has, like Fabre, "more than a passing love of things that glide in rushes and rubble of woody wreck," there rises in his mind the conviction that his subject is too big for isis scientific methods. He is inclined to think that scientific inquiry is only one of the roads to truth, that there are other rights of way-one of them being the path named Feeling. The beauty of the scenery is irrelevant to the geologist, even when he is discovering how the scenery came to be; and yet to the geologist as man and philosopher the beauty is as real as the petrography.

§ 6. Methodological Vitalism.

The biologist has to steer between a metaphysical Scylla and a materialistic Charybdis. Scylla has still many heads, of which "entelechy," "vital force," and "élan vital" are three. Charybdis is still voracious, in reducing to a lowest common denominator everything that she can suck into her whirlpool.

Which is to be most avoided—using a metaphysical label, a mere "x" to tie up the uniquenesses of life—or caricaturing the organism as an ingenious penny-in-the-slot machine, with an intermittent safety-valve whistle, called mind?

Careful steering finds the passage called methodological vitalism. This does not postulate any "vital.force" or "entelechy"; nor does it try to coerce the organism into the framework of "mechanism." What it says is this: There is a chemistry and a physics of the organism—more power to them!—but when they have finished their ledger of surface tensions, adsorptions, capillarities, gelations, solutions, ionizations, oxidations, reductions, hydrations, fermentations, and so forth, the description is inadequate. The baby has been emptied out with the bath. It is indeed the play of Hamlet with the part of the Prince of Denmark left out.

So far as we are aware, there is no single vital phenomenon that has as yet received adequate chemico-physical description, though corners or fractions of vital phenomena have been satisfactorily re-described in lower than biological terms. Dr. J. S. Haldane's researches and reflections are of great importance. Perhaps no vital phenomenon has been more brilliantly studied than the contraction of muscle, but would the latest discoverers say that they can give a matter-andmotion account of what takes place? This holds a fortiori when we pass to a large integrated phenomenon such as the migration of swallow or salmon. Much is known in regard to these periodic mass-movements, but even if we knew ten times as much again, should we be able to dispense with the biological concept of the organism as a historic being, in whom a racial as well as an individual past lives, actual and acting? This is methodological vitalism, that when we have made the most of the legitimate materialisms, the physics of the organism and the chemistry of the organism, we must use distinctively biological categories, such as the capacity of enregistering experience.

Some biologists would say that what is lacking is a recognition

See Biology, by Geddes and Thomson, Home University Library, 1925.

of the psychical aspect of the organism; and this is particularly true in regard to the higher reaches of animal behaviour, though less obviously true in regard to development. It may be that all biosis is really psycho-biosis, but this is speculative positive vitalism, whereas we are defending in the first instance the broader and more matter-of-fact position of methodological vitalism, that the synthetic and genetic description of organisms which biologists seek to work out, requires specific biological concepts. It is plain that this kind of vitalism holds good for the beanstalk as well as for Jack, though we cannot say much about the psychical aspect of plants.

§ 7. THE MENTAL ASPECT OF THE ORGANISM.

Especially in the open air, amid life as it is lived in Nature, the biologist is impressed with the mental aspect of organisms. The more intimately we know animals, the more does "mind" seem to count, though more critical methods have made observers less indiscriminately generous than they were before experiments began. Pioneers like Lubbock and Romanes, initiators like Lloyd Morgan, and critics like Loeb and Watson, deserve our gratitude for setting the science of animal behaviour on its feet. Some recent studies, like those of Köhler on chimpanzees, show an abundance of intelligent behaviour, which cannot be described without using psychological terms. Chimpanzees are heavily handicapped by their slender capacity for "imageforming" and by their very poor vocabulary, but when we picture them piling boxes on the top of one another to reach a banana on the roof, or fitting one piece of bamboo rod into another to retrieve some fruit outside the cage, and inventing a dozen similar devices, it seems impossible to doubt their power of perceptual inference. Both for birds and mammals it is possible to cite many good instances of adapting old means to a new end, of profiting by experience, of tentative experimentation, of appreciating relations, of putting two and two together and apparently making a judgment. And apart from intelligent behaviour, there are the tides of feeling, expressed at their finest in the song of birds. It seems legitimate to say that at many different levels in the animal kingdom, from the Amœba on the hunt to the elephant working with the forester, there is a recognizable mental aspect that counts. From psychical flashes in the Amœba there is an evolutionary ascent, with many offshoots from the main line, towards a dominant and continuous mental activity that counts in the life of the creature.

When we make a provisional inclined plane of the different kinds of animal behaviour, we see something like this: simple reactions to environmental stimuli and obedience to protoplasmic urges; engrained definite reactions and a "trial and error" method of testing these one after the other; a variety of reflex actions—simple and compound and concatenated; a great variety of tropisms or "forced movements"; some interesting intrinsic rhythms (correlated with the tides for instance) that have taken firm grip of the constitution; queer cases of individual experimentation below the level of intelligence (as in the brainless, indeed ganglionless, starfishes); a great stretch of varied instinctive activities, depending physiologically on inborn pre-arrangements of particular nerve-cells and particular muscle-cells, more complex than those for tropisms, but having in many cases, on the psychological side, a suffusion with awareness and even a backing of endeavour; and, much higher, on a different line of evolution, instances of intelligent behaviour which implies some understanding of the situation, and, unlike instinct, requires to be learned; then the individual habituation of intelligent activities; the subtle mingling of instinct and intelligence as in many of the ways of birds; and finally the rational behaviour occasionally illustrated by man, which implies conceptual inference or experimenting with general ideas.

It seems to us that an interesting general result is reached when we envisage the inclined plane of animal behaviour. We discern two main modes: (a) the expression of enregistered capacities for effective response, and (b) some individual initiative or fresh experimentation. It may be pardonable to make an

imaginary diagram by holding an ostrich feather, with its ascending curve, so that half of the barbs rise upwards and the others sink downwards. The barbs on the upper side of the feather-shaft may represent the initiative and experimental activities of animals, while those on the lower side represent the activities that spring from engrained enregistrations or pre-arrangements of nerve-cells and muscle-cells. Then, if the diagram be not tedious, the convex or outer surface of the feather may serve to suggest the objective or metabolic aspect of behaviour, while the concave or internal (and more or less hidden) surface will typify the subjective or mental aspect.

On the one side of the plane or curve we rank the simple reactions, simple reflexes, compound reflexes, tropisms, constitutional rhythms, simple instincts, chain instincts, and habituated intelligent behaviour. On the other side we rank simple tentatives, "trial and error" procedure, non-intelligent experiments, experimental and associative "learning," and intelligent behaviour in the strict sense. Now it seems to have been one of the trends of organic evolution to enregister and automatize modes of behaviour which are of frequent recurrence and immediate survival value, thus leaving the organism free to make more initiatives should these be needed. Thus we understand why there are so many forms of activity that can now be more or less adequately described in terms of pure neurosis, as in the case of reflex actions and the obligatory movements called tropisms, which depend on inborn preestablished linkages between certain receptor, adjustor, and motor neurons, the last serving to stimulate and control the effector-muscles. But although these and similar activities are nowadays reflex rather than reflective, physiological rather than psychological, it is not to be hastily assumed that they were evolved without psychosis. Let us suppose that a new departure in behaviour-capacity arises as a germinal variation, perhaps with its psychical correlate even there, the explicit organism has to test it in everyday life, and in this critical utilization there may be invention and judgment, which

¹ See Thomson's Biology of Birds (1923).

eventually die away when the approval of what is good is consummated in automatization. In the same way a progressive improvement in the capacity for a particular kind of instinctive behaviour may arise germinally, and yet depend for approval by Natural Selection on the degree to which it is *intelligently* tested. Of course this must not be confused with the highly improbable theory of the origin of instincts from lapsed intelligence. The distinction between the automatized and the experimental lines of behaviour has considerable theoretical interest; it is an extension of Sir Ray Lankester's contrast between (a) the "little-brain types," rich in instinctive capacities and slow to learn, finding their climax in ants, bees, and wasps, and (b) the "big-brain types," poor in instinctive endowment, but eminently educable, reaching a climax in horse and dog, elephant and ape.

§ 8. THE EFFICIENCY OF MIND.

According to the extreme mechanistic schools, behaviour is, or will be, thoroughly describable in physiological language, i.e. in terms of protoplasm, which in turn comes to be physicochemical. Even man is but an "adaptive mechanism," we are told by a physiological authority, who enumerates, however, among the functions of the mechanism "the fabrication of thought "--including, of course, the mechanistic theory. But this view is a contradiction in terms theoretically, and a contradiction of common sense practically. On the apsychic theory, that mind does not count, we may make much of horse and dog, but certainly not most. The evolutionary efficiency of mind is evident enough in the kingdom of man, the biologist sees the same among animals—in the search for suitable environments, in intelligent life-favouring, devices, in persistent endeavour towards a distant goal, in training the young, in the conventions of animal societies, in the impelling influence of emotions, and in many other cases. Samuel Butler did great service in maintaining that cunning has often been more of a factor than luck.

There is, we admit, a strong school of extreme behaviourists, who describe animal behaviour apsychically. It is not that they deny the reality of mind; what they deny is that it functions as an appreciable factor in the behaviour they describe. Against this the majority of biologists would bring forward cases where there is analogical evidence that the animal acts on the strength of some psychical activity, such as is implied in a mental image or in a surge of emotion. In many cases there is analogical evidence of a perceptual purpose. Biologists of the field-naturalist type are almost never behaviourists, and while they are notoriously "tender-minded," one cannot ignore the argument that if Man is the only organism in whose behaviour mind counts, then he is an almost incredible intellectual Melchizedek. Some have denied that mind is a vera causa in organic evolution, and others have claimed it as the essential driving force in all evolutionary change: A middle position is defensible, that while there is a physiological driving force in organisms, alike in their everyday endeavour and in their age-long evolution, there is many an occasion when they are body-Minds, rather that mind-Bodies.

§ 9. BODY-MIND AND MIND-BODY.

It is impossible, so far as we can see, to evade the question of the relation of "Mind" and "Body," if it be a relation. But the biologist is inclined to regard it as a limiting problem for human intelligence as it is at present. He is not any longer prone to talk nonsense about mind being fabricated by matter; he would rather say that mind emerges from a fraction of reality—say a primitive Protist—in which mind was already in some form implicit. What he sees to be true in individual development, where mind has its epiphany in the course of the differentiation and integration of the young organism, he holds to be true of racial evolution. After all, Newton developed from a minute egg-cell, and yet colloidal matter cannot account for consciousness. The biologist cannot get away from the Aristotelian wisdom, that there is nothing in the end which was not present in kind in the beginning.

What appears clear to the biologist is the reality of the two aspects-mental and metabolic, psychical and protoplasmic, subjective and objective. The organism he studies seems at times chiefly mind-Body and at other times chiefly body-Mind. Yet how closely are the two aspects inter-related. Digestion seems referable to biosis, yet how much it may be improved by good news; reflection seems referable to psychosis, yet how much it may be hindered by dyspepsia. Of the close interdependence there is no doubt, and yet who does not know of what looks like the emancipation of the Psyche from the trammels of protoplasm. There are equally wise and competent biologists on the dualistic and monistic sides. true enough to say that "body" and "mind" are both scientific abstractions; that holds for all science. But here we study a nervous system with all its intricate metabolism, and there we study the inner life of thought, feeling, and purpose; both are real, how are we to think of them together? It seems at present almost like a temperamental dichotomy that separates those who picture the mind as a musician playing on his instrument from those who see mental activity and nervous metabolism as two aspects of the life of one reality, the organism. When shall the biologist be taught by the philosopher how to ask his question aright?

§ 10. THE HERESY OF PANPSYCHISM.

One of the oldest, and, according to some, most disreputable, of metaphysical speculations is panpsychism. It is the theory that there is nothing strictly *inanimate*. It may be that all the objects of our experience have two aspects, meta-kinetic as well as kinetic, mental as well as material, psychical as well as physical. To many it will seem preposterous to revive this old view. Yet we venture to submit four considerations.

(1) It must be noted that "matter" and "mind" are both abstract aspects of reality. Matter is a fish that is caught in a net whose meshes are specially adjusted to let mind slip through. (2) There is a long inclined plane in the expression

of mind in the realm of organisms. How gradual the dawn l (3) There is another very gradual plane of expression in individual development. In Man how imperceptible—like the opening of a flower—is the emergence of mind from unrecognizable implicitness. (4) Moreover, if living organisms evolved from the not-living, then there must have been in the not-living the promise and potency of mind as well as of life. The statement that all came from the electrons and protons that made up the primitive nebula, must be supplemented by the older doctrine: "In the beginning was Mind."

If it be said that the modern cosmographer has no more need for "mind" in his account of the genesis of the earth than Laplace had for God in his nebular hypothesis, the answer must be that as long as one keeps to the physical world the Energy-Matter concepts suffice, but that one cannot get "mind" out of the nebula unless its primordium was already there. It may be noted in passing that when Laplace answered Napoleon's question about the work of God in his Celestial Mechanics, by saying, "Sire, I have no need of that hypothesis," he was neither atheistic nor flippant. He was merely pointing out with perfect clearness that the scientific investigator should never try to speak two languages at once. There is only confusion when we mix up empirical descriptive formulæ in terms of lowest common denominators with transcendental interpretative formulæ in terms of the greatest common measure.

According to the suggestion of immanent psychism there is throughout all creation a meta-kinetic aspect, the analogue of mind in man and in all the more effective animals. This has not, of course, anything in particular to do with the religious vision of a Spiritual Order, or with the religious belief that behind all there is the Will of God, a Divine Thought, perhaps a Divine Imagining—a grand conception which has sometimes suffered from the anthropomorphic corollary that the Creator may occasionally have to underpin the electrons and protons, or other works of His hands.

It may be said that there is not much trace of mental or meta-kinetic activity in plants. Yet we may think of these as remaining in the mental slumber of germ-cells and embryos, and of vegetative animals like zoophytes and corals. It may be that the extraordinary beauty of flowers and corals is an expression of their dreaming mentality. Perhaps the beauty of crystals and precious stones is also an expression of their meta-kinetic aspect? But the reader is not likely to be a believer in the objectivity of beauty!

§ 11. ORGANIC EVOLUTION.

It is generally believed that the solar system arose from an immense diffuse nebula. If life and mind came out of it, there must have been more in it than "met the eye." It cannot have been that hoary myth called "a fortuitous concourse of atoms."

After countless ages of whirling round alone, the sun, condensed as the centre of the nebula, came under the influence of another and a greater star, which appeared in the vicinity, if one can speak of vicinity. The attractive influence of this passing stranger—somewhat nebulously known, we fear had a very serious effect on the sun. From opposite sides there were drawn out the arms of an enormous spiral nebula, as if by a colossal double tide. On the great arms there were formed knots or nuclei which became the earth and the other planets. In some such way the solar system arose, and has continued as a unity on its inconceivable journey towards "the apex of the sun's way." In this journeying through space, at the rate of some twelve miles per second, it has possibly passed at diverse times into new cosmic environments—cosmic clouds consisting of widely extended diffuse matter in space. Such transits might have very interesting effects on the solar system and on the earth.

In any case, from being gaseous the earth became liquid, and then began to solidify from the crust inwards. The experts tell us that the consolidation of the earth must have occurred at least a thousand millions of years ago. With the cooling of the crust, the formation of an atmosphere and a hydrosphere

became possible, and with the establishment of a meteorological cycle and the beginning of weathering the cradle of life was ready. Henderson's Order of Nature (1917) and The Fitness of the Environment (1913) give a luminous account of 'the convergence of conditions which made the life of organisms possible. There was a friendly conspiracy, which in man's preparations we should call well-thought-out. But "preparation" is not a scientific idea; all that we know scientifically is that the physico-chemical pre-conditions were very suitable for the rise and progress of life. Was it nothing more than analogous to big rivers favouring the growth of great cities?

Whether from the enchanted dust of the earth, or by some beneficent bolt from the blue (possibly in passing through a cosmic cloud), living organisms appeared upon the earth, and they have continued evolving for many hundreds of millions of years. What are the great impressions that rise in the mind when we try to envisage the sublime Becoming?

(1) We cannot shut our eyes to the wealth of resources, as though Nature were an artist strewing the studio with beautiful sketches. There are 25,000 named and known species of backboned animals, 250,000 named and known species of backboneless animals, and each an individuality-itself and no other. (2) We are often prone to take organic evolution too prosaically, not realizing vividly enough its sequence of victories. What a stride there was from the unicellular or non-cellular phase of being to organisms with a body! What acquisitions are represented by the words-brain, blood, eye, hand! What advances are suggested by the adjectives "warm-blooded" and "viviparous"! How persistent the perfecting of integration along various lines—nervous, vascular, hormonic, and psychical! (3) Every organism is a bundle of fitnesses, and though the old particulate Argument from Design has disappeared before a reasonable account of how adaptations have been wrought out in the course of ages of varying and sifting, we are left with the broad fact that living creatures are so adaptable. (4) We see the hosts of life conquering every possible kingdom, from sea

to land, from earth to air, and insurgently claiming every niche of opportunity. The successive colonizations of the dry landnotably by worms, by air-breathing Arthropods, and by Amphibians, are stories eloquent of persistent endeavour and of great issues. Thus we see how the worm invasion led on to soil-making, the Arthropod invasion to the most important linkage in the world, that between flowers and their insectvisitors, and the Amphibian invasion to Reptiles, whence sprang the higher life of Birds and Mammals. (5) We picture the changes of the world-stage in the successive geological periods, and how these involved new motives in the drama and new pitfalls as well. For there has been an evolution of sieves as well as of material to be sifted. (6) We see the establishment of new inter-relations, increasingly subtle and widespread, so that nothing lives or dies to itself, and a web of life is woven. This external system of linkages plays an important part in sifting the nuances of variation, those that lisp "Sibboleth" are eliminated and those that say "Shibboleth" survive. In the external system of linkages there is, as in the inter-relations of human society, one of the guarantees of lasting advance, for retrogression is more difficult when diverse vital interests are involved. And the more systematization, the less there is of fortuitousness.

(7) The term Progress is no doubt bound up with man's ideals, but there is something analogous to it in organic evolution—something that must be called the advancement of life. There have been blind alleys, wanderings in a circle, and actual retrogressions, but the large fact is something like progress. For unthinkable millions of years there were only backboneless animals; in the Silurian there appeared the first fish-like creatures; in the Devonian the first Amphibians—the first Vertebrates with fingers and toes, movable tongue, true ventral lungs, and vocal cords breaking the silence of Nature. For many ages Reptiles were the crown of creation; long afterwards there came Birds and Mammals. This is the broad fact of the ascent of life, and it meant more than increase in differentiation. It meant the appearance of finer forms of life, to a greater degree

masters of their fate. Organic evolution is characteristically integrative.

Perhaps we do not make enough of the fact that the phylogeny of animals discloses a growing dominance of the mental aspect—of intelligence and feeling. Organic evolution is an evolution of individualities—of what we might almost call personalities, if it were not better to keep that word for man.

A very important idea is that of the repercussion of evolving mind on evolving body. When the animal mind began to come to its own, it had in the individual lifetime a development which was in part, most thinkers will allow, considerably different from the development of the body. This is conspicuously the case with man. But as the animal mind developed it must have enriched its body and made it in some measure new. We are not thinking of the possible entailment of mental modifications, but simply of the repercussion of individual mind on individual body which made it possible for the organism to play more effectively its "hand" of hereditary cards. This is one of the ways in which mind may have worked as a vera causa not only in individual development but also in racial evolution. No doubt organic evolution has meant a shuffling of the chromosomes, with endless permutations and combinations of their "genes" or hereditary "factors," but this must be supplemented by a recognition of psycho-biosis. The shuffling of the hereditary cards is a useful metaphor in its way, but it does not do justice to the creativeness that is characteristic of evolving organisms. Mendel must be supplemented by Bergson.

In our ætiology we do not seem to have got far beyond the central Darwinian idea of the sifting and segregating of variations that crop up. But we know a little more in regard to the nature and origin of the variations that form the raw materials of evolution, and in regard to the conditions of their hereditary entailment. Noteworthy is the degree in which the fortuitous has shrivelled in biology. Variations are often definite and congruent with the past; the random is rare. Variations often look like experiments in self-expression on the part of the implicit organisms, the germ-cells. What they, the blind artists, turn

out, the explicit organisms have to test. Selection is often in relation to significant sieves in the web of life. The formula "struggle for existence" covers all the thrusts and parries that organisms make against environing limitations and difficulties, and must include, as Darwin said, the soft-lining of the nest as well as the sharpening of teeth and claws. Indeed, the struggle for existence is often an endeavour after well-being. It is bad biology to think of the struggling organisms as necessarily like fishes in a net; they often share in their own evolution, selecting their environment, for instance, as well as being selected by it.

Darwin made it quite clear that he meant by "the struggle for existence" not merely the jostling and elbowing around the platter of subsistence, but equally the endeavours that birds make to save their young ones in a cold summer or against the glare of an unusually strong sun. He meant not only the inveterate antagonism between the grass-eating herds and the carnivores hungry for warm flesh, between the small rodents and the birds of prey; he thought also of non-competitive endeavours which animals make to cope with drought and cold. He included not only the cannibalism in the cradle which is seen in the egg-capsules of the whelk, when the pioneers devour the laggards; he thought also of the mutual aid so deeply engrained among ants. He included not only the starving locust eating its neighbour and the fierce combats among rats in despair; he thought also of the mutual aid of gregarious and social animals and of the many other forms of co-operation in Animate Nature. His wide naturalist's experience made him not only clear in regard to the doom of the unlit lamp and the ungirt loin, but appreciative of the time and energy that animals expend in other-regarding activities which secure the safety and welfare of the offspring. More clearly than anyone since, Darwin realized that the descriptive formula "the struggle for existence" is to be used in "a large and metaphorical sense," that it includes endeavours to give the family a good send-off in life as well as internecine competition for food and foothold.

No doubt there have been relapses from Darwin's shrewdness. There has often been too much red used in painting the picture, as when Huxley spoke of Nature as "a vast gladiatorial show" and "a dismal cockpit." Yet on the whole it is becoming clear that the Struggle for Existence is a formula for all the manifold efforts and answers-back that living creatures make against environing difficulties and limitations. It includes all the reactions which secure the welfare of self and kin. It is co-operative as well as competitive; and mutual aid often pays better than whetting teeth and sharpening claws. But many writers prefer to turn away from Nature itself to faded second-rate pictures, which were often obviously sociomorphic to begin with.

Biologists remain in thick mist as regards most of the "big lifts" in organic evolution. The formulæ of "mutation," "heredity," "selection," "isolation," and the like can, no doubt, be applied, but they do not as yet scatter the clouds. This is not surprising, since ætiology is still very young. Lloyd Morgan has done good service in frankly admitting that we cannot at present analyse these "creative syntheses" or "emergences." Just as the chemist cannot at present make clear how the combination of oxygen gas and hydrogen gas in certain conditions should result in such an extraordinary novelty as water, so it is, and more so, with the biologist at many a turn. The resultant is bigger than its components seem to account for. The mechanical comparisons do not fit. Progressive differentiations and integrations allow some new aspect of reality to express itself, as when birds evolved from reptiles, or when the brain of the higher mammals was fashioned, or when Homo emerged from among tentative men.

It often looks as if Nature were Nature for a purpose. In many ways, from the first, inorganic Nature has been extraordinarily "friendly" to organisms; broad organic foundations make lofty superstructures possible; there is a remarkable conservation of great gains; the whole of animate evolution reads like a commentary on the precept: test all things and hold fast that which is good. We admit the retrogressions of

parasites and sedentary animals; but these are by-ways. They should not blind us to persistent evolutionary trends—towards a Systema Naturæ, towards the growth of intelligence and fine feeling, towards increased control, towards lives that are increasingly satisfactions in themselves, as we see when we compare birds with worms. But a purpose cannot reside in a system like Nature, it must be predicated of an Author; and it must be thought of as transcending a purpose like ours—central reality as that is to us—much more than ours transcends the perceptual purpose of a clever creature, or the instinctive purposiveness of a hive-bee that is hardly so ingenious as it looks.

One does not seek to base any religious conclusion on biological data, but it is suggested that the facts in regard to Animate Nature are not incongruent with its religious intrepretation as the expression of a Divine thought. No doubt there are discords and disharmonies—poignantly disclosed by John Stuart Mill, Huxley, and James; but perhaps Lotze was nearer the truth in hearing "an onward advancing melody." Perhaps the philosophers are sometimes open to the reproach of dealing with worn clichés of Nature, instead of with the facts themselves.

Man's ideal of progress includes the two pre-conditions of health and wealth. But Animate Nature is all for health; apart from man and parasites, disease is almost unknown in wild life. And Animate Nature also favours that mastery of energies—a food-store at its simplest—which allows of a certain freedom of action and conquest of vicissitudes. Beavers are in real sense wealthy.

But besides the (more or less partial) fulfilment of the preconditions of health and wealth, man's ideal of progress means a balanced all-round movement towards a fuller realization of the True, the Beautiful, and the Good. It is surely not farfetched to point out that in the ascent that man has behind him there are great evolutionary trends towards these highest values. Animate Nature is all for beauty, and the exceptions prove the rule. Rewards go to clear-minded animals that face

the facts and master them. The supreme rewards in the Animal Kingdom go to good parents, good lovers, good kin—the self-forgetful and the self-subordinating. To speak metaphorically, Nature crowns the raw materials of morality, and the momentum of evolution is not against man's best endeavours, but in line with them. Part of that momentum is literally operative within us, and why should evolution cease?

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OUTLINE OF A PHILOSOPHY OF RELIGION

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BIOGRAPHICAL

I was born in London in 1865, the youngest child of my parents. separated by some years from the nearest in age to me of my elder brothers and sisters. My father was a well-known London clergyman, who had been among the pioneers of the 'ecclesiological' revival of the 'forties, and the intimate friend at college of the hymnwriter, John Mason Neale. The life of the home in which I was brought up was inspired by the ideals of the Tractarian Movement, but of that movement as transplanted to Cambridge, of which University my father was a graduate and my mother's father had been a professor. My elder brothers were, however, at Christ Church, Oxford, to which (like myself later on) they had proceeded with close scholarships from Westminster School. religion of my parents combined with a somewhat rigid ecclesiastical theory and with the high standard of morality and duty characteristic of English clerical households a love of beauty and culture which was quite remote alike from Puritan suspicion and from utilitarian contempt of these aspects of life. The requirement or even the approval of such an experience as is called 'conversion' in young people who were already Christian and had not wandered altogether away from the ways of right living had no place in their scheme of piety. It was the more unexpected that, though I had never come under 'Evangelical' influences, either at home or at school (where there was nothing in the 'Broad Church' atmosphere of Dean Stanley's Westminster to suggest the thought of such a spiritual crisis) or at Christ Church in my first year there, I passed, while a freshman, through an experience of this kind, which was a turning-point in my spiritual history. I shall here confine myself to its effects on my intellectual life. It found me sceptical after a youthful fashion, yet with a no less boyish pose of contempt for such heterodoxy as I found current among my contemporaries and a boyish pride in my knowingness about things religious; it left me with a profound conviction of the reality of God and of the duty of openmindedness and intellectual honesty; a belief that it was the first of religious duties to keep one's ears open to any voice, from whatever quarter, which might convey a message from God; a delightful sense of expectation of strange and wonderful things, though it might be stern and severe things, that any such voice might have to tell me. The influence of one to whom I, in common with many young men of my generation at Oxford, owed much in the way of help and encouragement in the spiritual life, Mr. (now Bishop) Charles Gore, told in the same direction; for, although a man already with strong and definite views of his own, he was of the very opposite temper to that which 'compasses sea and land to make a proselyte,' and always showed the most delicate and sympathetic respect for the right to intellectual and spiritual freedom of those with whom he had to do.

It was in this mood that I came, in 1886, to the study of philosophy for the School of Literæ Humaniores. I had, indeed, from early boyhood been of a speculative turn of mind. I remember well how, when quite a little child, the thought 'Iwhat do I mean by I?'—came upon me with the effect of a sudden and, for the moment, overwhelming shock. I was, long before I began to study philosophy as part of my prescribed work, familiar with the sense of loneliness in an infinite universe—the chapter on the 'Everlasting No' in Carlyle's Sartor Resartus appealed to me very strongly-and with depression due to the contemplation of life, not as 'a many-coloured dome of glass,' but as tinged with the greyness, the 'pale cast of thought,' so often thrown over it by metaphysical reflection upon a Reality which includes all and rejects nothing, and dwarfs into insignificance the myriad processes of change and development which begin, continue, and end within itself. When in such moods, history becomes to me a 'tale full of sound and fury, signifying nothing,' but my liability to them has been balanced, in respect of my interest in the past and its connection with the present, by a strong sense of the continuity of history, which was early aroused in me by Freeman's Sketch of European History and encouraged by Stanley's Westminster Abbey, and has been fostered by the opportunities of a life almost entirely spent, first at Westminster and then at Oxford, in the enjoyment of the corporate life of societies which, in their traditions and customs, handed on from generation to generation amid the same venerable surroundings, bring home this continuity, in a way hardly to be paralleled elsewhere, to the affections and imaginations of their members.

In my undergraduate days at Oxford the influence of Green, whose death had taken place only a few years previously, and whose posthumous *Prolegomena to Ethics* had just been published, was at its height, and for my own generation of Oxford men the

starting-point of our various philosophical developments is usually to be sought in the idealistic criticism of Mill and Herbert Spencer for which Green stood. This is true for the 'realists,' 'personal idealists,' and 'pragmatists' among us (if these nicknames may be used for the nonce), as well as for those who may seem to be more closely affiliated to Green's own type of philosophy.

The Prolegomena to Ethics, however, though I owed it much, was not the philosophical book which most influenced me during my undergraduate days; but a translation of Kant's Grundlegung der Metaphysik der Sitten (I did not read German till much later, and still do not read it with ease). The presentation herein of Morality as a 'categorical imperative' made an extraordinary impression upon me, reviving and reinforcing the sentiments of my 'conversion' of two years before, and leaving ineffaceable traces on all my subsequent thought. Moreover, my mind was, like that of all who are trained in the traditional Oxford course, being continually moulded by the intensive study of Plato's Republic and Aristotle's Ethics, which is, as is well known, the characteristic feature of the old 'Greats' school.

I was so fortunate, during this period, as to come under the instruction of very eminent teachers. My initiation into regular philosophical studies I owed to Mr. (now Professor) J. A. Stewart; and on his leaving Oxford, while I was still but a beginner, for what the Americans call a 'sabbatical year,' his place as philosophical tutor at Christ Church was filled for the remainder of my time by Mr. (afterwards Professor) Cook Wilson, then Fellow and Tutor of Oriel College, a great teacher and a great thinker, whose decision not to publish anything until he could put the results of his philosophical investigations before the public in a form satisfactory to himself has unfortunately deprived it (owing to his death in 1915) of the advantage of being able to study as it deserved one of the most original and thorough pieces of thinking on logic and metaphysics that his generation had to contribute to the common stock.

From Wilson his pupils learned to look on philosophical questions not as opportunities for the display of cleverness or of literary elegance or for indulgence in vague enthusiasm, but rather as problems to be solved by a patient effort to think out what was implied in the experiences (often of the most everyday kind) which had suggested the questions. They learned also to distrust conventional terms and phrases, however sanctioned by general use or by the authority of great writers; one should always ask oneself precisely what one meant by them, and prefer, where possible, to express what one had to say in common and untech-

nical language. They were taught to think for themselves, not to repeat the thoughts of their tutor; which, indeed, he was in no particular hurry to impart to them. In his approach to the realism' of his later years he departed, as Mr. Prichard has said, from the idealism which Green had made current in the generation of teachers to which Wilson belonged, 'with extreme hesitation and without emphasis'; and in the eighties most of us, I think, had very little suspicion in what direction his mind was moving. Although he in no sense neglected moral philosophy, or underrated its importance, he never claimed to have a gospel to preach; yet the nobility of his character, his strict sense of duty, his frank admiration of all that was honest, just, pure, lovely and of good report, could not escape the observation of those who were often in his company. I did not cease to be his pupil when I took my degree, but remained in close touch with him down to the time of his death, to my very great advantage; although my congenital incompetence in matters of mathematical and physical science, such as constantly occupied his attention, rendered me incapable of profiting by much that was most important and characteristic in his teaching.

It is a privilege for which Oxford teachers of philosophy cannot be too grateful that they have abundant opportunities of mutual criticism and interchange of thought in the society of a more considerable number of colleagues occupied in philosophical studies than could easily be found elsewhere. Of the group in whose company I have chiefly enjoyed this privilege—a group in which a great variety of opinion and interest has been represented-Cook Wilson was, while he lived, the centre. If I name three others, to whose discussion of philosophical problems I feel myself especially indebted-Professor J. A. Smith, Mr. H. W. B. Joseph, Mr. H. A. Prichard-it is not because they are by any means the only friends and colleagues from whom I have learned much. Looking back over nearly forty years of Oxford life, and noting the fluctuations of thought, the influence of individual thinkers or of schools, both within and without the University, upon the current of intellectual life among us, one perceives that there is material before one for an interesting chapter in the history of ideas; but this is not the occasion for attempting to write it.

My own attention has of late been chiefly concentrated on the Philosophy of Religion, on which I have lectured for many years, and which now that, after thirty-three years' work at Magdalen College, I have ceased to be a college tutor and have been appointed to a chair founded by the munificence of Dr. Charles Nolloth for the advancement of this subject, has become my sole professional occu-

pation. With the Philosophy of Religion, the mediæval studies which have served me as a recreative change of work during a good part of my life at Oxford, and have interested me as illustrating a topic always especially attractive to me, the history of ideas, can without difficulty be brought into connexion. To my preoccupation with this my chosen Fach I owed a privilege which I cannot end these notes without mentioning; the friendship, which I for many years enjoyed, of a distinguished man, a master in the spiritual life, whose religious genius, wide and various learning, and thorough philosophical culture made his friendship one of singular value to a student of the Philosophy of Religion, the late Baron Friedrich von Hügel.

My second series of Gifford Lectures was dedicated to a friend, without the mention of whose name I should have been silent concerning the personal influence whose effect upon my intellectual and religious life has been more continuous and powerful than that of any other. With Mr. C. J. Shebbeare—now the worthy successor of Bishop Butler in the rectory where the Analogy was written-I have from boyhood shared all my thoughts upon the problems of philosophy and theology. Our minds are cast in very different moulds; our opinions even on some questions of great importance are not coincident; but so close and intimate has been our intercourse that I owe scarcely less to him in respect to those matters on which we differ than in respect to those on which we agree; and it would be quite beyond my powers to attempt a detailed estimate of my debt, which is in any case greater than that for which I am under obligations to any other single person.

OUTLINE OF A PHILOSOPHY OF RELIGION

It is with very great hesitation that I respond to the Editor's invitation to give an account of my own philosophy, and that for two reasons. In the first place I am profoundly conscious that those convictions and opinions which I am in the habit of expressing in the course of my professional duties as a teacher, and which I have from time to time expressed also in print, are very far from forming a body of doctrine capable of systematic treatment, and that this is because they are held by myself tentatively, doubtfully, with a constantly present sense of dissatisfaction in the background, and under the threat of a complete intellectual revolution, the temptation to precipitate which is seldom long absent from my mind. place I know that about many philosophical problems of the highest importance I have nothing to say, and that, in respect of them, I have either acquiesced in my own incompetence or disinclination to discuss them, or confined myself to noting rather than thoroughly studying and criticizing the views of others; at most to observing the place of such views in the history of thought and their affinities to other positions which have been adopted on these or kindred subjects.

I suppose that most philosophers are set upon their inquiries by a special interest in some one or other department of experience; some are thus interested in nature, some in art, some in history, some in conduct, some in religion; and with me it is certainly religion that has supplied me with my primary motive in philosophizing. The obvious danger which anyone in this case runs of making his philosophy a mere ancilla theologiæ and becoming an 'apologist' is perhaps to some extent counteracted by its very obviousness; and,

whether I have escaped it or not, I have never ceased to be on my guard against it; and I can honestly say that nothing is to me more unlovely, when detected, than apologetic masquerading as philosophy. On the other hand I have frankly allowed problems of a kind with which my experience has made me familiar, and for the study of which I believe myself to have the advantage which is given by temperamental sympathy with the states of mind to which they present themselves, to engross most of my attention, to the comparative neglect of others, which a good many years of teaching and discussion have taught me that I do not readily understand or greatly care about; for example, those concerned with logical method and those relating to the nature of perception.

I accept the general results of the Kantian criticism, so far as it shows the impossibility of remaining content with the supposition that the world of our experience and of our science is revealed merely through sensation; and the fact that the existence of natural science itself, as of any other kind of knowledge, is inexplicable if the methods which it uses in the investigation of objects are taken to be sufficient for the explanation of the whole of our experience, appears to me a sufficient refutation of what is called Naturalism. But, however successful in demonstrating the untenableness of an empiricism which treats the mind as merely passive and derives our ultimate principles of synthesis from the sensations which they synthesize, no criticism, as it seems to me, can, without self-contradiction, attempt to postpone knowledge to an inquiry into the nature of knowledge—a course at least as impracticable as the refusal to go into the water until one knows how to swim; for the first principles of knowledge must be assumed in this as in any other inquiry, and without them one could not stir a step in it. That an absolute standard, not external but immanent, is implied in the very notion of truth, and in the fact that we can detect and correct error, appears to me to be beyond all question; and, on this account, I cannot but reject altogether any doctrine of the relativity of knowledge which ignores this, and any system which, like Pragmatism, demands an external criterion of truth. I do not attempt here to elaborate the reasons which in my judgment establish this position; they have been often expounded far better than I could expound them; and the position itself is, unless I am greatly mistaken, substantially that of the majority of the great philosophers from Plato and Aristotle downwards.

This implies that the world which we know is rational; and, on the same principle upon which we assume, as a postulate of our scientific inquiries, that for the fact whereof we can give no rational account there is notwithstanding a reason which would satisfy our intelligence if discovered, even though we have not the means of discovering it, a frank acceptance of our æsthetic, moral and religious experience as genuine experience and not illusion, would seem to involve a recognition of Beauty, of Goodness, and of Divinity as realities, the apprehension of which is involved in our dissatisfaction with what falls short of them, and which are progressively found to reveal themselves even where our first inspection finds them most obviously lacking. We may think of the history of art, with its ever-renewed discovery of the possibility of finding beauty where it seemed least promising to look for it-of the 'soul of goodness in things evil' to be perceived, 'would men observingly distil it out '-of the revelation of God in what appears most God-forsaken, which for Christians is symbolized by the acceptance of the crucified Jesus as the Son of God.

The pursuit of such a line of thought, however, does of course presuppose, as I said above, the frank acceptance of our æsthetic, moral, and religious experience as genuine experience of a reality as independent of our minds as is the world revealed to us by the senses and interpreted by the natural sciences. And this is no easy matter. For there can, in the nature of the case, be no final answer to the suggestion that we have in these kinds of so-called experience a subjective illusion. A rejoinder that there is no final answer either to the suggestion that we have no more than this in our experience of the physical world is indeed possible, and cannot be rebutted; but it is, I think, unquestionable that while this

latter suggestion (to borrow Hume's remark about the arguments of Berkeley) may indeed admit of no answer, but also in the great majority of men produces no conviction, similar doubts about our æsthetic, moral, and religious experience are found to recur again and again even to the minds of those habituated to the contemplation and study of the objects with which they are concerned. It is true that, however disturbing this constant recurrence of doubt and misgiving may be to their peace of mind, such persons find no difficulty in assigning an explanation for it in the very nature of such experience, the distinctive character of which it is to require, at least for its maintenance in being, an exercise of voluntary adhesion to the object compared wherewith the subconscious synthesis or the act of attention which may be allowed to be requisite to the achievement even of an experience of sensible objects might be called involuntary. This is most obvious in the case of moral experience; but it is true also of æsthetic and religious experience, even where these take the form of Wordsworth's 'wise passiveness' or of the quietist's 'waiting upon God. But while the part necessarily played by the will in these departments of spiritual life accounts for the comparative instability of our sense of their reality, acquiescence in the belief that they are purely subjective and illusory cannot be reconciled with that unescapable consciousness of moral obligation, of a categorical imperative, upon the true character of which it is the immortal merit of Kant to have insisted more decisively and impressively than any other philosopher. It is no doubt true that Kant himself did not allow to our consciousness of beauty or to our consciousness of God the same selfaccrediting authority and unquestionable validity that he accorded to our consciousness of the moral law written in our hearts. But, even if we do not go beyond his own position in respect of these, the admission of the claim on behalf of morality alone is sufficient to overthrow the naturalistic position which is assumed when our consciousness of physical objects is taken to reveal a reality independent of ourselves in a sense in which no other part of our experience can pretend

to do so. And to those who have once understood and admitted Kant's claim on behalf of Morality the final abandonment of belief in its justice will be not less difficult than it would be for all men consistently to indulge in scepticism respecting the existence of a physical world independent of our individual minds. We may recall the sagacious observation of Hume that "sceptical doubt, both with respect to reason and the senses, is a malady which can never be radically cured, but must return upon us every moment, however we may chase it away and sometimes may seem entirely free from it." "Carelessness and inattention," he goes on, "alone can afford us any remedy. For this reason I rely entirely upon them, and take it for granted, whatever be the reader's opinion at this present moment, that an hour hence he will be persuaded there is both an external and an internal world." The 'carelessness and inattention' which Hume recommends to us as the only cure for the malady of scepticism with respect to the senses and to that kind of use of reason of which he is here thinking, will not indeed cure the like malady of scepticism with regard to Goodness, to Beauty and to God; but that is because it is as much the nature of these to reveal themselves only to a conscious and personal interest as it is that of physical objects to obtrude themselves upon our attention, a failure of which in regard to them would indeed imperil the very continuance of our physical life, which is the basis and condition of our spiritual.

While Philosophy cannot, without committing suicide, abandon the quest of an ultimate unity within which may be embraced all the regions of Reality that are revealed to us in the several forms of experience already mentioned, the attempt to construe this unity in terms of any one of these forms would seem to fail. Naturalism can give no account of Morality or of Beauty that does not explain them away; but it is no less impossible to conceive how from ethical or aesthetic principles one could deduce the laws of number or of chemical combination; or again how one could be satisfied with a merely aesthetic ethic or a merely ethical aesthetic. The extremely

abstract conception of Order can only be invoked with any hope of finding in it the supreme principle whereof Philosophy is in search if we forget that every department is ordered according to principles of its own with which no consideration of Order in general could have made us acquainted. It is possible, perhaps, to recognize in Plato's conception of the Form or Idea of the Good (remembering that 'Good' in this phrase means something much wider than 'morally Good') the most suggestive attempt ever made to deal with the problem now before us. We should, I think, mean something by saying that the universe would be the 'worse for being ordered, like a fairy tale, on principles of 'poetic justice'—that it is the better for including within itself the system of natural law with all its rigid determinism; that it is in the same sort of way better with the presence within it of moral struggle and heroic effort, or again of beauty and the endeavour to achieve it, than it would be if these were absent; and that thus Goodness, in the wide sense which Plato seems to give to the word. alone has the character which we require in the supreme principle of existence; it is not, like 'Being' or 'Order,' a mere abstraction from kinds of 'Being' and of 'Order,' whose intrinsic differences are not covered by it; nor does it belong itself to one of the great departments of experience, the disparateness of which gives rise to the very problem which is vexing us. Moreover, as Plato himself has observed, it belongs to the conception of Goodness that it requires the actuality of whatever falls under it. "He was good," he says in a famous passage of the Timæus, speaking in mythical fashion of a Creator of the world, "and therefore he grudged existence to nothing."

In thus attaching myself to Plato I am not unconscious of a very important difference between ancient and modern philosophy in regard to their respective theories of knowledge; a difference which must make it impossible—even were we disposed, with not a few of our contemporaries and with my own teacher, the late Professor Cook Wilson, to favour a certian reversion to the ancient position—to treat this last as though

it had not undergone the criticism to which it has been submitted by the great thinkers of the last three centuries.

Ancient philosophy takes, on the whole, what may be called the common-sense view of the relation in which the object of knowledge stands to its subject. Whether 'knowledge' be used to render the French savoir and the German wissen or the French connaître and the German kennen, whether we speak of knowing the fact that something is thus or thus, or of knowing the person or thing with which we are acquainted, we commonly imply that the fact or the person or the thing in question exists independently, not indeed necessarily of us or of our will in every sense—the fact may be due to our action, or the thing may be produced by ourselves—but independently of the act of ours or the process in us whereby it is known.

But we cannot say with the same assurance that this is generally the view of modern philosophy, which begins with Descartes' doctrine that the inexpugnable bed-rock of all certainty is the knower's knowledge of himself: Cogito ergo For common sense, and on the whole for ancient philosophy also, just because it is taken for granted that the object of knowledge is independent of the act whereby it is known, the typical object is something unquestionably distinct from the knower or subject; and, although no doubt the object may sometimes be the subject's own self, this at once suggests that we have to do with something paradoxical and difficult to describe, since the independence upon the subject which is taken to be characteristic of the object seems to contradict On the other its identity with it in this particular case. hand, if, as by Descartes, the knowledge of one's own existence is taken to be the fundamental and typical knowledge, the difficulty appears to lie rather in understanding how one can know what is not oneself, and it seems to be less obviously true than from the other point of view it seemed to be, that the object cannot be brought into being by the act in which it is known, but must be presupposed to exist in order to be subsequently or at least simultaneously known. For plainly

the act of thinking, the cogitatio, which, according to Descartes, is the primary and fundamental object, the apprehension of which is beyond all question knowledge, is actually the very self which is knowing, and not something in the self other than its present knowledge; since the Cogito ergo sum does not really guarantee the existence of anything in the self other than just this present act of thinking.

Now it is remarkable that both the ancient realism and the modern idealism, as we may call it, of which Descartes is the pioneer, find themselves hindered in carrying out their principles to the full by considerations which have their source in religious experience. It was (as we may trace in the history of the word 'idea' itself) by way of the problem of divine knowledge, which cannot be conceived of as waiting upon an independent object, that the doctrine of a mind creative of its object, a doctrine contradicting the realistic principle, arose in the bosom of the ancient philosophy. And, on the other hand, the most serious objection which has to be encountered by the identification of the human with the divine mind, which, although not intended by Descartes, was the inevitable outcome of the way of thinking inaugurated by him (and which is avowed in perhaps its most nakedly irreligious form by Croce in our own day, with his utter rejection of any God but the Deus in nobis et nos) lies in its ultimate incompatibility with the characteristically religious attitude of worship.

It is no doubt from a secret anticipation of this tendency, implicit in idealism, to work itself out into a denial of all such transcendence of the human spirit by the divine as will justify religious worship, that the Roman Catholic Church has clung so persistently to the Scholasticism which, remaining faithful to the ancient tradition, has constantly asserted the independence of the object of knowledge upon the act whereby it is known; and has even abandoned the Augustinian language, common in the earlier Middle Ages, which described the mind as even in natural knowledge illuminated by the Divine Word, and has condemned as theological error, under the name of Ontologism, a doctrine in holding which the great Catholic

Cartesian Malebranche believed himself to be a follower of Augustine and of the author of the Prologue to the Fourth Gospel.

But, if religious experience calls a halt to a tendency which, unchecked, would leave worship without an object or a rational ground, it is also impossible to admit that its demands upon philosophy are fully met by the affirmation of a God who, being only a part of the whole of reality, can be described as finite: and who, like all that is finite, must be transcended and transmuted in the Absolute. About the problem involved in the questions: Is God the Absolute? Is the Absolute God? my thoughts continually revolve, but I could not honestly say that I am satisfied with any suggestions that I can offer towards its solution. This problem is intimately intertwined, if it is not ultimately the same, with the yet more familiar difficulty of the compatibility of God's omniscience and sovereignty with man's freedom and initiative; and both with the 'vain, interminable controversy,' as Carlyle called it, about the origin of evil. In these regions of speculation one can perhaps scarcely hope to fare much better than the fallen angels in Milton, who "found no end, in wandering mazes lost."

In the experience of philosophic thought we encounter the paradox of the Absolute, by which we mean that ultimate unity within which the antithesis of subject and object must itself fall, becoming itself the object to a subject which yet, if it be the Absolute indeed, it must include within itself. With this paradox Philosophy—that is to say such philosophy as does not reject as unnecessary this conception of the Absolute, and (as I should say) in so doing cease to be philosophy—deals by recognizing in philosophy, that is, in itself, even when appearing (and we only know it as so appearing) as the thought of a finite mind, the self-knowledge of the Absolute—or if, with Spinoza, it prefer that word, of God—and saying of itself: "I am the eye, wherewith the Universe Beholds itself and knows itself divine."

Philosophy is consciously from the first engaged in the quest of that which is truly and ultimately real; but Religion is

concerned with this same object, yet not at first consciously. That which characterizes from the first the object of Religion is a peculiar quality, which has been called le sacré or das Heilige, and is felt rather than understood somehow to contain within it the 'nameless secret of existence,' alike of our own and of that of the things about us. When we have reached the intellectual level at which the question can be raised, Religion can accept as its adequate object nothing short of the Supreme Reality, above and beyond which there can be nothing. And so the worshipper's own diversity from the object of his worship becomes something with which he is dissatisfied, just as the philosopher cannot conceive of himself otherwise than as included within the Absolute which he contemplates. And just as the philosopher is driven to regard his own knowledge as the Absolute knowing itself in him, so the religious man is led to recognize his own worship as due to a divine activity within his soul; and this recognition culminates in Christianity, according to which, as St. Paul expresses it: "God hath sent forth the Spirit of his Son into our hearts, crying, Abba, Father." Of the consciousness here described the doctrine of the Trinity in Unity is the translation into terms of theology, that is, of a philosophical account of religious experience. Accordingly, Christian prayer and worship are offered to the Father in the name, that is, as it were, in the person of the Son; and in this way the religious activity comes to be envisaged, in a manner which presents a close analogy with the philosopher's recognition that in philosophy we are vehicles of the self-knowledge of the Absolute, as a participation in the divine life, in the essential process or movement whereof the worship of filial love is an intrinsic and eternal factor.

Even in the case of Philosophy the questions arise—though we may perhaps come to the conclusion that they are by us unanswerable—whether there is any knowledge that falls outside of 'finite centres' (the phrase is used by Mr. Bradley); and, whatever reply be made to this, what account can be given of the existence of many 'finite centres' as organs of the self-knowledge of the Absolute. But in regard to the

analogous questions that present themselves in the case of religious experience it is less easy to acquiesce in an 'agnostic' attitude. I am convinced that Religion cannot, in the last resort, dispense with a transcendent object of worship; and the difficulty of reconciling the 'creation' (to use the traditional term) of finite persons, who in their religious experience find themselves in the presence of a Divine Majesty, with the eternal perfection of that Divine Majesty itself, is not diminished, but rather increased by the recognition, above, of the 'Word' or 'Son' as an integral factor in the divine life. For then it takes the form of a problem concerning the distinction of the eternal Word from the finite persons into whose hearts his Spirit of Sonship may be sent forth. To identify him with them, or to make him one, even though the chief or 'first-born,' among them is to surrender the very advantage which the doctrine of such a factor in the Godhead seeks to secure for our theology; to distinguish him as 'Creator' from them as 'creatures' is to treat their very existence as mere superfluities.

I think that considerations which abstract from the aspects of reality revealed in our moral, æsthetic and religious experience cannot help us here; but the saying, quoted above from Plato, that the Creator, being good, grudged existence to nothing, and the Christian doctrine that God is love, alike suggest a point of view from which the existence of 'finite centres' of intelligence and will no longer appears as merely paradoxical and enigmatic.

It is a principal reason with Croce for contemptuously dismissing Theism that it sets over against the real historical process, in which alone moral discrimination has meaning and application, the phantom of a perfect Being wherein all has been from eternity actual which notwithstanding is being accomplished over again in time. But the withers of Theism are unwrung by a criticism which does but state a characteristic of religious experience already perfectly familiar to those who accept it as a genuine revelation of Reality. "The paradox, 'To be realized because real,'" so the late Mr. Bosanquet

wrote to me less than a month before his lamented death, "is not a phrase but the real power of life." It is not the teaching of history, as might perhaps be antecedently expected—as by philosophical students of religion from the outside is sometimes indeed taken for granted—that belief in the eternal reality of perfection in God tends to discourage or weaken zeal for the improvement of the world. On the contrary, it is scarcely too much to say, with Mr. Bosanquet in the letter I have quoted just above: "That you only get zeal and effective works'—social and historical progress—where you have religious faith" and "the fullest work where you have the deepest and highest faith."

What is the object of the faith of which we can speak thus, and what is our ultimate justification for it? It is a satisfaction to me to be able to refer here to the admirable observations of Professor Alexander in his Gifford Lectures on Space, Time and Deity upon the religious sentiment or emotion and its object: observations which I can accept wholeheartedly, notwithstanding my inability to follow their author in his account of the nature of deity as a quality hereafter to emerge, of which the universe is already, so to speak, in labour, but to which it has not as yet given birth. I entirely agree that, as we are "assured of other minds through the social emotion," so we are assured of God "through a different response, the religious emotion"; a specific response, as he goes on to say, provoked in us by Reality, "which makes us aware, no matter in how primitive a form, of God," and which may be described as "a going out to something in the world with which we are in communion." Especially valuable, to my mind, is the distinction which Professor Alexander draws between our religious intercourse with God and the social intercourse with which we naturally compare it. He is surely right in holding that we must not look for the same kind of response from God as that the lack of which in commerce with our fellows would convince us that we were no longer in relations with them at all. No doubt we have here a fact that constitutes one of those trials of our faith which entitle it to be described as a 'victory.' We remember the agonized cry which the apparent silence of God wrung from Carlyle: "He does nothing!" Yet we cannot accept to-day the test which Elijah is said to have propounded to the priests of Baal. An 'answer by fire' would rather raise new difficulties in our minds than satisfy those which we had before. Nevertheless, though there be 'no voice, nor any that answers,' we experience the divine response "through our own feeling" (to quote Professor Alexander again) "that devotion to God or worship carries with it its own satisfaction." But it is, after all (if I may repeat words which I have already written elsewhere on this subject), no new doctrine that in our relations with God we walk by faith and not by sight; and if we cannot here separate what is divine from what is our own as we can what is our own from what is our fellow-man's, this is at bottom because it is only by and in God's drawing of us and revelation of himself to us that we can either seek or find him.

The recognition of this difference between our intercourse with God in religion and that with our fellow-men in society may seem at first sight to be inconsistent with affirming personality in God. And there is, indeed, a line of thought sometimes connected with this affirmation with which it is really inconsistent. It is inconsistent with regarding the relation between the personality of God and that of one of ourselves as one of mutual exclusion in the same sense as that in which the relation between two human personalities may be said to be such; and it is therefore also inconsistent with the view, which goes naturally along with so regarding it, that the essence of the doctrine of divine personality lies in the supposition that God has a private life of feeling, will and knowledge, rather than in our religious experience of an intercourse with God possessing the 'warmth and intimacy' characteristic of our intercourse with our fellow-men. But if we allow that we can attribute personality to God only provided that we do so in a sense which permits of our dwelling in him and his dwelling in us as we cannot dwell in one another; and that the doctrine of divine personality is not an inference from

metaphysical or other non-religious considerations, but the theological expression of a fact of religious experience; then we shall also allow that personality cannot be attributed to God in precisely the same way as we attribute it to a fellowman; and that the difference between the two cases corresponds to the important difference between religious worship and social intercourse to which Professor Alexander has lately, as we saw, called our attention.

Holding, as I do, that the doctrine of personality in God. although certainly not essential to religion—since there are great religions which do not teach it—is yet (as I have attempted to show in my God and Personality, pp. 248-9) the expression of a legitimate development of a feature often described as 'divine transcendence,' which is essential to religion. I wish to take all the more care to point out that it seems to me to be tenable only if it be understood in a manner which does not bring it into conflict with our religious experience at its best. Thus it must not, as I have just pointed out, be so taken as to be inconsistent with the immanence of God in the human soul, or with the absence in religion of what I may call the social response, except as mediated through one which is social in the ordinary sense of the word. Neither, again, must it be so taken as to expose us to a danger which was felt so acutely by Kant that it made him unable to find room for private devotion in a rational religion. It is one of Kant's greatest services to theology that, in his Religion innerhalb der grenzen der blosen Vernunft, he disallowed the existence of a class of duties, in our discharge of which, as owed to himself, God should be especially interested, as our sovereign is in the performance of our political, our parents or our children in that of our filial or parental obligations. In his desire to insist upon this point, he is indeed inclined to look upon the 'warm and intimate' relation to God in our experience of which I have placed the true ground of our doctrine of divine personality, as a dangerous illusion; dangerous because it may suggest to us the possibility of getting at God, if I may so express it, behind the back of the moral law. There was no doubt a certain temperamental deficiency in Kant himself, which prevented him from doing justice to those aspects of Religion which distinguish it from Morality, and led him to represent it as merely an expressive, though not indispensable, symbolism of moral attitudes. We may admit that it is more than this, that it is indeed a level of experience higher or (if we prefer the metaphor) deeper than the strictly ethical; yet we ought, I think, to appropriate Kant's lesson, and studiously avoid in our theology any such danger as he indicated. The 'forgiveness of sins' is indeed a religious, not (in the narrower sense) an ethical doctrine; but, though it may and must transcend, it must not ignore the law of which the sins forgiven were the transgression.

But while I consider that the doctrine of Divine Personality can be so stated as not to involve denial of God's immanence in human souls or the attribution to him of an inner life of private thoughts and interests, I do not think it can be reconciled with the assertion that human personality is—to use a word which was accepted by Mr. Bosanquet as expressing his own viewmerely adjectival. I shall not attempt to enter here upon the criticism of this highly important contention, to the examination of which I have devoted the penultimate lecture (on Absolute Idealism and the Individual) of my Gifford course on Divine Personality and Human Life. I will content myself with adding to what I have said the remark that in Mr. Bosanquet's discussion of the problem in question the claims to a relative substantiality with the Absolute, alike (against political individualists) of the State and (against Croce and Gentile) of that 'nature' whereof Wordsworth and Meredith are for Englishmen the prophets, obtain a more sympathetic consideration than do those of the individual human soul.

Neither Naturalism, that is, a philosophy based on natural science alone, nor a philosophy which, starting from criticism of such a Naturalism and adopting from the first the *impersonal* attitude of natural science, tends to minimize the importance of human personality as of all finite individuality, appears to be able to deal adequately with the mystery which, as the late

learned Dr. Merz pointed out in his very interesting essay on Religion and Science, we find confronting us alike when we explore the nature of the world of objects in the presence of which we stand and when we trace the origin of our consciousness of that world—namely, the mystery of Personality. A view of the world, on the other hand, which draws its main inspiration from a religious experience of the Christian type, will incline, I think, to find in human personality its principal clue to the ultimate nature of Reality.

The late Mr. Bradley devoted the concluding pages of his Appearance and Reality to a confession of 'ultimate doubts,' and I will venture to follow his example here.

Pascal in a famous passage spoke of himself as terrified by the infinite reaches of Space; it is rather the infinite reaches of Time by the dread of which my imagination is vexed. I am not unfamiliar with considerations by means of which it has been sought to remove or lessen this dread; but, even if the 'idealism' which makes Time the creature of Mind were less beset with difficulties than it is, it would not rob Time of its infinity; and, although no doubt mere succession, apart from real events, is but an abstraction, the conception of an unbeginning and unending procession of events is not the less baffling for that. To say that our minds are in Time is not indeed to tell the whole truth; for our consciousness of Time, as Green insisted, implies something in us which transcends Time; yet our minds, though I could not (with Locke and Professor Alexander) allow them to be in Space, are certainly always in Time. In his last book, Mr. Bosanquet has powerfully urged that the 'moralism,' as he calls it, which depends upon taking Time to be ultimately real, is essentially irreligious: nevertheless it would not be true to the historical facts in regard to Religion to view it as concerned only with the transcendence of Time by preoccupation with eternal values; for it is concerned rather with the realization of these eternal values in truly human, that is, in individual finite lives; and it is no easy matter to unite the conception of an interminabilis vitæ tota simul et perfecta possessio (as Boethius

defines eternity) with that of a real human spirit which would seem to need Time as a field for possible activity. Nowadays the majority of philosophical students would probably be disposed to consider the problem of immortality as not a philosophical problem, properly speaking, at all; and I should myself agree that Philosophy has no means of foretelling future happenings, whether in this life or another. While, however (as I have stated more fully at the end of my Gifford Lectures on Divine Personality and Human Life), I find the doctrine of personal immortality not only in conflict with all appearances, but uncongenial to my own mood and temper, I cannot deny that, where stress is laid on personality in Religion, the belief in that doctrine seems naturally to arise; as may be illustrated from its history among Jews and Greeks alike. Nor is a religious view of the world, especially of a world wherein multitudes die without the consolation which Philosophy and Religion impart through the vision of a Good accomplished in the evils of their lot, easily compatible with the acceptance of death as the end of all separate being. Belief in immortality there may be apart from religion; and there may certainly be religion apart from an explicit and operative belief in immortality; but it is difficult to resist the impression that only in exceptional cases can religion, as the modern European understands religion, coexist with a definite conviction that all men, all nations, all civilizations and the race itself are doomed to perish out of the universe. Yet of this survival, under the conditions which obtain in the material world wherein our present lot is cast, there seems, to say the least, no probability; and the hope which is based upon the religious experience of a personal relation to the Eternal is the only hope able to assert for itself a claim to be entertained, the force of which must be proportional to the self-evidencing power of that conviction itself.

But the very notion of an eternally perfect Being, the ground of all existence (such as this faith presupposes) is rendered difficult by a serious and thorough-going acceptance of evolution or development as the form in which Reality manifests itself.

For if this Being is itself in process of evolution, it cannot (so it would seem) be eternally perfect; and if it be thought of as eternally perfect independently of the world which is being evolved, it is hard to conceive a 'sufficient reason' for the creation or existence of the latter. And, if this be true of evolution in any case, it is still more obviously so with evolution as we actually find it. And it is to be observed that these difficulties concern alike the God of Religion and the Absolute of Idealism. We may indeed dimly divine that a world wherein truth emerges from error, and goodness triumphs over evil, is better than one in which there should be no struggle and no victory. We have certainly no experience of a world of this latter kind, and we value very highly some things which such a world would seem necessarily to exclude. We must perhaps leave the matter there; but it is idle to deny that there remains in our minds an impression of mystery and even of paradox. And this is more markedly so in the sphere of Religion. For one might have expected that here there might be an exception; that here at least truth and goodness would be directly revealed apart from their opposites; and no doubt it has often been held that this is actually the case. But it is surely impossible in view of the history of Religion to admit it; or to deny that at least as much error has been mixed with truth, as much evil with goodness, as elsewhere; even if we do not go the length of crying with Lucretius, in words which must often rise to the lips of those conversant with that history, Tantum religio potuit suadere malorum.

Such are, if I may so express it, the ragged edges—the very ragged edges—of 'my philosophy.' I make no pretence to have satisfied myself about the problems which I have indicated. Indeed, I believe that the problem of the relation of Time and of Evolution (taken seriously) to the eternity and perfection of God is that towards a solution of which it will be the chief task of the Philosophy of Religion in the immediate future to work. But the religious experience, in which, at every stage in the struggle with the difficulties which beset faith in God,

God is perpetually being rediscovered, refuses to be put aside as merely illusory, or as no more than an immature form of a philosophic apprehension which when mature can dispense with anything that can be properly called worship. And even in those in whom "the native hue of resolution is sicklied o'er with the pale cast of thought," either through a conviction of the unreality of Time on the one hand or through impatience of its endlessness on the other, there remains a consciousness of a life to be lived, of duties to be done, which resists paralysis There is a profound truth contained in by such reflection. Kant's doctrine of the 'primacy of the practical reason' as concerned with the whole life of man, whereof the exercise of the theoretical activity is no more than a part; while, as I have elsewhere attempted to urge, his representation of the relation of Religion to Morality as merely symbolical is inadequate; the sentiment of reverence for the moral law written on our hearts assumes a form intellectually more satisfactory-despite the many other difficulties which this development may bring along with it--when it becomes a reverence for the God whom that law reveals.

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